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# Section 1

# General Information

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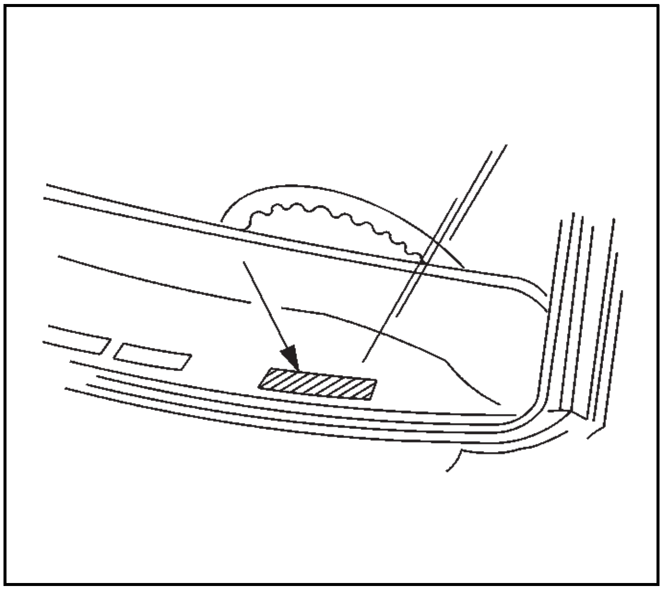
# General Information

## Introduction

### Vehicle, Engine and Transmission ID and VIN Location, Derivative and Usage



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The vehicle identification number (VIN) plate is the legal identifier of the vehicle. The VIN plate is located on the upper left corner of the instrument panel. The VIN number can be seen through the windshield from the outside of the vehicle:

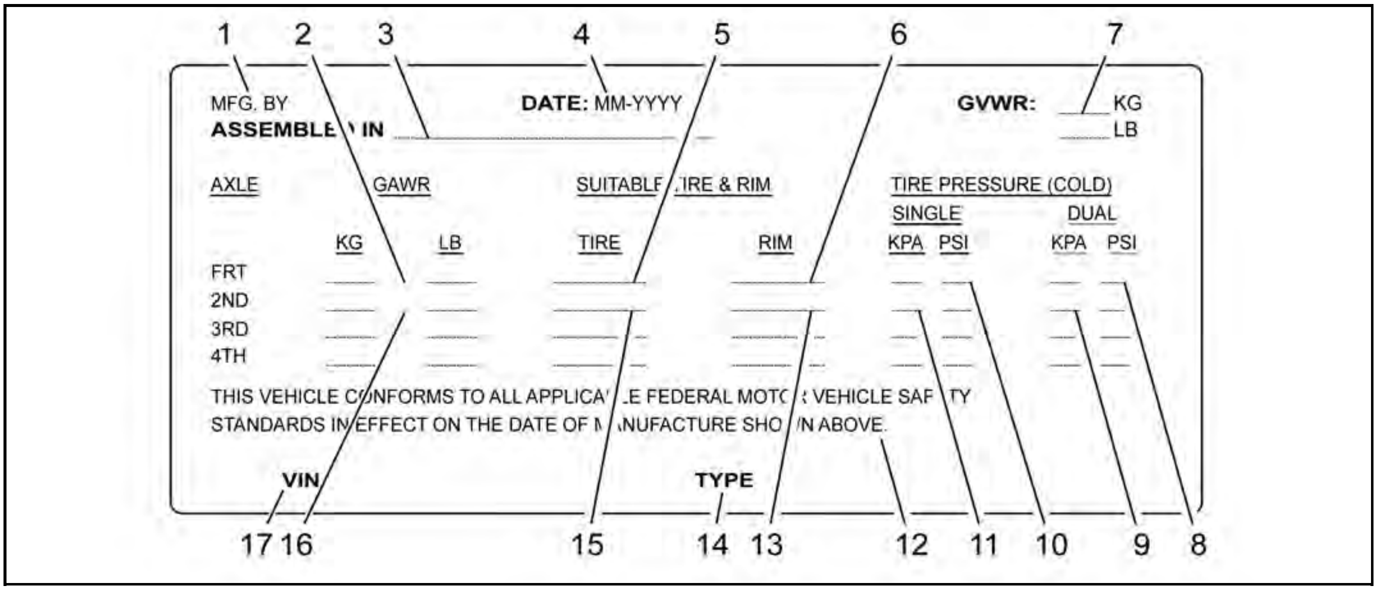
**Vehicle Identification Number (VIN) System**

| Position | Definition | Character | Description |
|---|---|---|---|
| 1 | Country of Origin | 1 | United States |
| 2 | Manufacturer | H | Navistar, Inc. |
| 3 | Vehicle Brand/Type | A | Chevrolet Incomplete |
| 4–5 | Make/Model/Series/Type | KH | GM GM515 GM Conventional SFA 4x2 |
|  |  | KJ | GM GM515 GM Conventional SFA 4x4 |
| 6–7 | Engine Type | PV | RPO L5D - Engine Diesel, 8 Cyl, 6.6L, DI, V8, Turbo, Duramax, GEN 5, VAR. 3 |
| 8 | GVWR/Brake System | H | Class 4: 14,001 – 16,000 lbs./Hydraulic |
|  |  | K | Class 5: 16,001 – 19,500 lbs./Hydraulic |
|  |  | M | Class 6: 19,501 – 26,000 lbs./Hydraulic |
| 9 | Check Digit | 0~9,X | Calculated by POMS |
| 10 | Model Year | K | 2019 |
| 11 | Plant Location | H | Springfield, Ohio |
| 12–17 | Plant Sequence Number | — | Plant Sequence Number |

#### 6.6L (L5D) Engine ID and VIN Derivative Location

Refer to *Engine Identification* in the Service Manual.

## Vehicle Certification Label


1
2
3
4
5
6
7
MFG. BY
ASSEMBLED IN
DATE: MM-YYYY
GVWR: KG
LB
AXLE
GAWR
SUITABLE TIRE & RIM
TIRE PRESSURE (COLD)
SINGLE
DUAL
KG
LB
TIRE
RIM
KPA
PSI
KPA
PSI
FRT
2ND
3RD
4TH
THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.
VIN
TYPE
17
16
15
14
13
12
11
10
9
8

4991554

### Vehicle Certification Label

| Callout | Description |
|---|---|
| A vehicle-specific Certification label is attached to the driver-side door frame and displays the following assessments: | |
| 1 | Name of Manufacturer |
| 2 | Gross Weight Rating of the Front Axle |
| 3 | Location Vehicle was Assembled In |
| 4 | Final Date of Manufacture (Month and Year MM/YY)<br>Date of manufacture is to reflect the date that the vehicle is counted as built. In those cases where a replacement label is needed, the replacement label should reflect the actual build date not the date of replacement. |
| 5 | Tire Size Front Axle |
| 6 | Rim Size Front Axle |
| 7 | Maximum Gross Vehicle Weight Rating (GVWR) |
| 8 | Tire Pressure Front Axle Dual (Cold) |
| 9 | Tire Pressure Rear Axle Dual (Cold) |
| 10 | Tire Pressure Front Axle Single (Cold) |
| 11 | Tire Pressure Rear Axle Single (Cold) |
| 12 | Certification Statement |
| 13 | Rim Size Rear Axle |
| 14 | Vehicle Class Type (Pass Car, etc.) |
| 15 | Tire Size Rear Axle |
| 16 | Gross Weight Rating of the Rear Axle |
| 17 | Vehicle Identification Number (VIN) |

## RPO Code List

The following table provides the description of the Regular Production Option (RPO) codes that are available on the vehicle. The vehicle's RPO list is printed on the Service Parts Identification Label.

| RPO | Description |
|---|---|
| 005 | RATIO-4.56 (4 5/9) |
| 008 | RATIO-4.88 |
| 01U | PRIMARY COLOR-EXTERIOR, SPECIAL (02) |
| 02U | PRIMARY COLOR-EXTERIOR, SPECIAL, CHART NOT REQUIRED |
| 066 | RATIO-4.10 (4 1/10) |
| 092 | RATIO-4.3 |
| 1LT | PACKAGE-LT OPTION 1 |

| RPO | Description |
|---|---|
| 1WT | PACKAGE-WT OPTION 1 |
| 2TB | TIRE FRONT-225/70R19.5F 125/123L BW HWY VAR1 |
| 379 | SEAT BELT COLOR-ORANGE (02) |
| 3F9 | SEAT BELT COLOR-RED (01) |
| 3TB | TIRE REAR-225/70R19.5F 125/123L BW HWY VAR1 |
| 4AA | INTERIOR TRIM-JET BLACK |
| 4D7 | INTERIOR TRIM-JET BLACK/DK ASH |
| 4TB | TIRE SPARE-225/70R19.5F 125/123L BW HWY VAR1 |
| 5D1 | BUMPER FRT-PAINTED GRAY |
| 5DX | PROVISIONS-ELEC - UPFITTER, REAR OF CAB |
| 5DY | PROVISIONS-ELEC - UPFITTER, REAR OF FRAME |
| 5H1 | KEY-SINGLE KEY SYSTEM, 2 SPARE KEYS |
| 5P0 | PROVISIONS-ENGINE SHUTDOWN |
| 6Y5 | ORNAMENTATION-EXTR, EMBLEM, NON-INSTALLED |
| 719 | SEAT BELT COLOR-BLACK (10) |
| 7Y7 | BATTERY-1100 CCA, DUAL BATTERY SYSTEM |
| 7Y8 | BATTERY-1300 CCA, DUAL BATTERY SYSTEM |
| 7Y9 | BATTERY-2250 CCA, THREE BATTERY SYSTEM |
| 8E4 | FUEL-ADDITIONAL - 5 GALLONS |
| 8E8 | BUMPER FRT-PAINTED, BLACK |
| 8H5 | BUMPER FRT-NONE |
| 9D9 | MIRROR I/S R/V-(NONE) |
| 9L3 | TIRE SPARE-NONE |
| 9L7 | EQUIPMENT-ACSRY WRG JUNC BLK |
| A31 | WINDOW-POWER OPERATED, ALL DOORS |
| A68 | SEAT RR-SPLIT, FOLDING |
| A95 | SEAT-FRT BKT, HIGH BACK, DRIVER & PASS RECL |
| AAC | PARTS PKG-SHIPPED LOOSE |
| ACO | IDENTIFICATION-ACCESSORY CATALOG OFFERING |
| AE7 | SEAT-FRT SPLIT, DRIVER, PASS |
| AG1 | ADJUSTER FRT ST-POWER, MULTI-DIRECTIONAL, DRIVER |
| AJ3 | RESTRAINT SYSTEM-SEAT, INFLATABLE, DRIVER, FRT |
| AK5 | RESTRAINT SYSTEM-SEAT, INFLATABLE, DRIVER & PASS FRT |
| AKO | WINDOW TYPE-PRIVACY |
| AKP | WINDOW TYPE-SOLAR ABSORBING |
| APL | SEAT PASSENGER-(NONE) |

| RPO | Description |
|---|---|
| AQQ | LOCK CONTROL, ENTRY-REMOTE ENTRY, EXTENDED RANGE |
| ATZ | SEAT RR-NONE |
| AU3 | LOCK CONTROL-SIDE DR, ELEC |
| AZ3 | SEAT-FRT SPLIT, DRIVER, PASS, FULL FEATURE CENTER |
| BG9 | COVERING FLOOR-RUBBER |
| BTN | EQUIPMENT-POST BATTERY, THREADED |
| BTV | REMOTE START-ENGINE |
| C42 | HVAC SYSTEM-HEATER, OUTSIDE AIR, DELUXE |
| C49 | DEFOGGER-RR WINDOW, ELECTRIC |
| C5B | GVW RATING-15,000 LBS |
| C67 | HVAC SYSTEM-AIR CONDITIONER FRT, ELECTRONIC CONTROLS |
| C7P | GVW RATING-16,000 LBS |
| C7R | GVW RATING-16,500 LBS |
| C99 | SWITCH-INFL RST I/P MDL MAN SUPPRESSION |
| CV3 | COUNTRY-MEXICO |
| D07 | CONSOLE-FRT COMPT, FLOOR, CUSTOM |
| DD4 | GVW RATING-17,000 LBS |
| DD5 | GVW RATING-21,000 LBS |
| DD7 | GVW RATING-23,500 LBS |
| DD8 | MIRROR I/S R/V-LT SENSITIVE |
| DF2 | MIRROR O/S-LH & RH, WIDE LOAD, FOLDING, STAINLESS STEEL |
| DH6 | MIRROR I/S FRT VAN-LH & RH, SUNSHADE, ILLUM |
| DP9 | MIRROR PROVISIONS-HOUSING, CHROME |
| DPN | MIRROR O/S-LH & RH, WIDE LOAD, VERTICAL GLASS, MAN EXTENDING,MAN FOLDING, HEATED, TURN SIG IND, REMOTE CONTROL |
| E01 | STEPS-ASSIST |
| E0N | STEPS-ASSIST ALUMINUM |
| E20 | HANDLE O/S DOOR-CHROME |
| E48 | COVER-RADIATOR GRILLE OPG - COLD CLIMATE |
| ED5 | WHEELBASE-201 INCH |
| ED9 | WHEELBASE-165 INCH |
| EF7 | COUNTRY-UNITED STATES OF AMERICA (USA) |
| EM1 | WHEELBASE-199 INCH |
| EQB | WHEELBASE-219 INCH |
| ER2 | WHEELBASE-189 INCH |
| F0C | AXLE END FRAME-49 INCH |
| F0D | AXLE END FRAME-63 INCH |
| F0G | AXLE END FRAME-83 INCH |
| F0I | AXLE END FRAME-75 INCH |

| RPO | Description |
|---|---|
| F0K | AXLE END FRAME-91 INCH |
| F59 | STABILIZER SHAFT FRT- |
| F95 | SUSPENSION FRONT-6,000 LB, TAPERED LEAF |
| FBC | WHEELBASE-243 INCH |
| FF3 | SEAL-OIL, WHEEL FRT |
| FG0 | HUB-FRONT, OIL FILLED SYNTHETIC |
| FHX | VEHICLE FUEL-DIESEL B20 |
| FK6 | SUSPENSION FRONT-7,000 LB, TAPERLEAF, I-BEAM |
| FN1 | AXLE REAR-10,000 LB (4,536KG) |
| FNV | WHEELBASE-175 INCH |
| FPN | WHEELBASE-231 INCH |
| FQT | WHEELBASE-141 INCH |
| FRP | WHEELBASE-235 INCH |
| FSN | SUSPENSION FRONT-8,000 LB (3,629 KG), TAPERED LEAF |
| FTA | AXLE FRONT-7,000 LB., FRONT NON DRIVING |
| FTB | AXLE FRONT-7,500 LB., FRONT DRIVING |
| FTD | AXLE FRONT-6,000 LB., FRONT NON DRIVING |
| FTL | AXLE FRONT-8,000 LB., FRONT NON DRIVING |
| FTN | LUBRICANT-FRT AXLE, SYNTHETIC |
| FTO | LUBRICANT-RR AXLE, SYNTHETIC |
| FTV | SUSPENSION FRONT-7,500 LB, TAPERED LEAF, SHACKLE TYPE, PARABOLIC SPRING |
| FU7 | SUSPENSION REAR-15,500 LB (7,031 KG), MULTILEAF |
| G1K | PRIMARY COLOR-EXTERIOR, SACR'E BLUE MET(409Y) |
| G2X | PRIMARY COLOR-EXTERIOR, HAVANA MET-1 (439C) |
| G40 | SUSPENSION REAR-12,000 LB, AIR |
| G68 | SHOCK ABSORBERS-RR, HD, TRUCK |
| G7C | PRIMARY COLOR-EXTERIOR, PULL ME OVER RED SOLID (130X) |
| G86 | AXLE-LIMITED SLIP |
| GAN | PRIMARY COLOR-EXTERIOR, SWITCHBLADE SILVER MET (G) 636R |
| GAZ | PRIMARY COLOR-EXTERIOR, SUMMIT WHITE (G) 8624 |
| GBA | PRIMARY COLOR-EXTERIOR, BLACK (G) 8555 |
| GH5 | EQUIPMENT ADDITIONAL-CANADA |
| GL4 | AXLE REAR-11,000 LB (4,990 KG) |
| GP1 | SUSPENSION REAR-13,500 LB, AIR |
| GP8 | SUSPENSION REAR-15,500 LB, AIR |
| GPA | PRIMARY COLOR-EXTERIOR, GASOLINE MET-2 (457B) |

| RPO | Description |
|---|---|
| GR3 | SUSPENSION REAR-11,000 LB (4,990 KG), MULTILEAF |
| GR4 | SUSPENSION REAR-13,500 LB, MULTILEAF |
| GZG | GVW RATING-19,500 LBS |
| GZH | GVW RATING-21,500 LBS |
| GZJ | GVW RATING-18,000 LBS |
| GZX | GVW RATING-17,500 LBS |
| H0U | INTERIOR TRIM CONFIG-CLOTH, LEVEL 2, JET BLACK |
| H2Q | INTERIOR TRIM CONFIG-VINYL, LEVEL 1, JET BLACK /DK ASH |
| H2R | INTERIOR TRIM CONFIG-CLOTH, LEVEL 1, JET BLACK/ DK ASH |
| H2S | INTERIOR TRIM CONFIG-CLOTH, LEVEL 2, JET BLACK / DK ASH |
| HD1 | AXLE REAR-15,000 LB (6,804 KG), DANA S130 |
| HD2 | AXLE REAR-13,500 LB (6,124 KG), DANA S110 |
| I19 | ENGINEERING YEAR-2019 |
| IO3 | RADIO-INFOTAINMENT SYSTEM - BASE HMI |
| IO5 | RADIO-INFOTAINMENT SYSTEM - UPLEVEL HMI, ENHANCED CONNECTIVITY |
| IO6 | RADIO-INFOTAINMENT SYSTEM - UPLEVEL HMI, ENHANCED CONNECTIVITY, EMBEDDED NAVIGATION |
| IOB | RADIO-INFOTAINMENT SYSTEM - MIDLEVEL HMI, MIDLEVEL CONNECTIVITY |
| ITT | MARKET BRAND-INTERNATIONAL TRUCK |
| J48 | BRAKE SYSTEM-HYDRAULIC, HEAVY DUTY STSTEM, ABS |
| J69 | BRAKE PARKING-MECHANICALLY OPERATED |
| JG1 | SHAFT-PROP, ALUMINUM |
| JL1 | CONTROL-INTEGRATED TRAILER BRAKE |
| JPY | AIR DRYER-HEATED |
| JPZ | VALVE-AIR SUSPENSION AIR RELEASE |
| JTR | PROVISIONS-TAIL LAMP - WIRING HARNESS SPECIAL |
| K05 | HEATER ENG-BLOCK |
| K2N | PROVISIONS-2 WAY RADIO UNIT |
| K34 | CRUISE CONTROL-AUTOMATIC, ELECTRONIC |
| K40 | ENGINE BRAKE-EXHAUST |
| K4C | CHARGER-INDUCTIVE PORTABLE WIRELESS DEVICE |
| KA1 | HEATER SEAT FRT-DRVR & PASS |
| KBG | SHIFT CONTROL-AUTOMATIC TRANSMISSION, FUEL SENSE BASIC |
| KBK | SHIFT CONTROL-AUTOMATIC TRANSMISSION, PERFORMANCE |

| RPO | Description |
|---|---|
| KG4 | GENERATOR-150 AMP |
| KHB | GENERATOR-150 AMP AND 220 AMP, DUAL |
| KI4 | RECEPTACLE-ELECTRICAL, ACCESSORY 110 VOLT |
| KL6 | PROVISIONS-TAIL LAMP, LOCATION INSIDE OF FRAME |
| KT0 | HOSE-HEATER, SILICONE |
| KUD | CLAMP-HEATER HOSE, BELLEVILLE WASHER TYPE |
| KUT | AIR COMPRESSOR-ACCESSORY DRIVE |
| KW5 | GENERATOR-220 AMP |
| L5D | ENGINE-DIESEL, 8 CYL, 6.6L, DI, V8, TURBO, DURAMAX, GEN 5, VAR. 3 |
| ME0 | TRANSMISSION-AUTO 6 SPD, ALLISON, A1750MH, 3.10 1ST 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH GEN 1 |
| MF0 | TRANSMISSION-AUTO 6 SPD, ALLISON, A2700MH, 3.10 1ST 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH GEN 1 |
| MG0 | TRANSMISSION-AUTO 6 SPD, ALLISON, A2700EVS, 3.10 1ST 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH GEN 1 |
| MH1 | TRANSMISSION-AUTO 6 SPD, ALLISON, A1700EVS, 3.10 1ST 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH GEN 1 |
| MHV | TRANSMISSION-AUTO 6 SPD, ALLISON, A1750EVS, 3.10 1ST 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH GEN 1 |
| MI0 | TRANSMISSION-AUTO 6 SPD, ALLISON, A1750RDS, 3.10 1ST 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH GEN 1 |
| MIA | TRANSMISSION-AUTO 6 SPD, ALLISON, A2700RDS, 3.10 1ST 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH GEN 1 |
| MIU | TRANSMISSION-AUTO 6 SPD, ALLISON, A1700RDS, 3.10 1ST 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH GEN 1 |
| MIX | TRANSMISSION-AUTO 6 SPD, ALLISON, A1700MH, 3.10 1ST 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH GEN 1 |
| MJ0 | TRANSMISSION-AUTO 6 SPD, ALLISON, A1750HS, 3.10 1ST 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH GEN 1 |
| MTZ | PROVISIONS-TAIL LAMP, LOCATION OUTSIDE OF FRAME |
| MWA | TRANSMISSION-AUTO 6 SPD, ALLISON, A1700HS, 3.10 1ST, 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH, GEN 1 |
| MWB | TRANSMISSION-AUTO 6 SPD, ALLISON, A2700HS, 3.10 1ST,1.80 2ND,1.40 3RD, 1.00 4TH,0.70 5TH,0.60 6TH, GEN 1 |
| N12 | EXHAUST SYSTEM-REAR EXIT |
| N2L | FUEL TANK-REAR TANK 40 GAL (151L) |
| N33 | STEERING COLUMN-TILT TYPE |
| N4C | CERTIFICATION-EMISSION, USA 50 STATE |
| N4E | EMISSION SYSTEM-USA, 50 STATE |

| RPO | Description |
|---|---|
| NAV | PLANT CODE-NAVISTAR, SPRINGFIELD, OH, USA |
| NK5 | STEERING WHEEL-STANDARD |
| NP5 | STEERING WHEEL-LEATHER WRAPPED |
| NPJ | EXHAUST SYSTEM-SIDE EXIT, LH |
| NPK | EXHAUST SYSTEM-SIDE EXIT, RH |
| NPR | EXHAUST SYSTEM-SIDE EXIT, RH, LOCATION BEHIND REAR WHEEL |
| NQF | TRANSFER CASE-ELECTRIC SHIFT CONT, TWO SPEED, ALUM |
| NSQ | FUEL TANK-DUAL, FRONT 25 GAL (94.6L), REAR 40 GAL (151L) |
| NVK | FUEL TANK-FRONT, 25 GAL (94.6L) |
| NXG | FUEL-ADDITIONAL - 20 GALLON |
| NXO | FUEL-ADDITIONAL- 40 GALLONS |
| NZZ | SALES PACKAGE-SKID PLATE, "OFF ROAD" SPORT |
| P0D | GUARD-GRILLE SCREEN - INSECT PROTECTION |
| P0E | GUARD-GRILLE SCREEN - EMBER |
| PD7 | WHEEL SPARE-(NONE) |
| PTO | ENGINE CONTROL-POWER TAKE OFF (PTO) CONTROLS |
| PTX | ENGINE CONTROL-POWER TAKE-OFF (PTO), CONTROLS - NONE |
| PWQ | WHEEL-19.5 X 6.75, J, STEEL, DESIGN 1 |
| PWR | WHEEL-19.5 X 6.75, J, STEEL, DESIGN 2 |
| PWS | WHEEL-19.5 X 6.75, J, STEEL, DESIGN 3 |
| PWV | WHEEL-19.5 X 6.75, J, ALUMINUM, DESIGN 1 |
| PWY | WHEEL SPARE-19.5 X 6.75, J, STEEL, DESIGN 1 |
| Q91 | CAP-VALVE, TIRE, AIR-THRU DESIGN 1 |
| Q92 | CAP-VALVE, TIRE, AIR-THRU DESIGN 2 |
| RDI | ACCESSORY-KEYLESS ENTRY |
| RWI | ACCESSORY-BODY SIDE MOLDINGS - CHROME |
| RWK | ACCESSORY-BODY SIDE MOLDINGS - PAINTED |
| RWR | ACCESSORY-CAMERA - REAR VISION |
| RY7 | ACCESSORY-DOOR HANDLES - ALTERNATE FINISH 1 |
| S0P | ACCESSORY-INSERT - FLOOR CONSOLE |
| S6M | ACCESSORY-RADIO KIT - NAVIGATION |
| S6P | ACCESSORY-REMOTE START KIT |
| S6W | ACCESSORY-SEAT COVER - MUDDER (PROTECTIVE) |
| S6Z | ACCESSORY-SEAT COVER - TAILORED - ALTERNATE MATERIAL |
| SFJ | ACCESSORY-WINDOW SHADES - REFLECTIVE |
| SFV | ACCESSORY-WIRELESS NETWORK INTERFACE MODULE |

| RPO | Description |
|---|---|
| SIF | ACCESSORY-RSE - PORTABLE MEDIA CONNECTIVITY PACKAGE |
| SYT | ACCESSORY-SILL PLATES - ALTERNATE FINISH |
| T3A | BUMPER PROVISIONS-FRONT, 4" EXTENSION |
| T3U | LAMP FRT FOG-FRT FOG |
| TG5 | PLAYER-COMPACT DISC AND MP3 |
| TR1 | LAMP-TAIL & STOP |
| TRW | PROVISIONS-LAMP, ROOF MOUNTED |
| U01 | LAMP-FIVE, ROOF MARKER, TRUCK |
| U04 | HORN-SINGLE NOTE |
| U05 | HORN-DUAL |
| U19 | SPEEDOMETER-INST, KILO & MILES, KILO ODOMETER |
| U2J | DIGITAL AUDIO SYSTEM-S-BAND - NONE |
| U2K | DIGITAL AUDIO SYSTEM-S-BAND |
| U73 | ANTENNA-FIXED, RADIO |
| UDC | DISPLAY INSTRUMENT-DRIVER INFO ENHANCED (ONE COLOR GRAPHIC) |
| UDD | DISPLAY INSTRUMENT-DRIVER INFO ENHANCED (MULTI COLOR STANDARD GRAPHIC) |
| UE0 | COMMUNICATION SYSTEM-VEHICLE - NONE |
| UE1 | COMMUNICATION SYSTEM-VEHICLE, ONSTAR |
| UGE | LAMP-RR TAIL, LED |
| UK3 | CONTROL-STEERING WHEEL, ACCESSORY |
| UMN | SPEEDOMETER-INST, MILES & KILO, MILES ODOMETER |
| UNL | EQUIPMENT-AUX, 3' FRONT HEAD/ TURN LAMP |
| UQ3 | SPEAKER SYSTEM-ENHANCED AUDIO |
| UQ5 | SPEAKER SYSTEM-4, DUAL FRT DR MTD, DUAL EXTD RGE QTR MNTD |
| UTJ | THEFT DETERENT-ELECTRICAL, UNAUTHORIZED ENTRY |
| UVC | VISION-REAR VIEW, MONO, ANALOG |
| UY7 | WIRING HARNESS-TRUCK TRAILER, HD |
| UZF | ALARM B/U-ELECTRICAL, |
| UZI | EQUIPMENT-TRUCK TRAILER HD, SIDE TURN LAMPS |

| RPO | Description |
|---|---|
| V22 | GRILLE-RADIATOR, CHROME |
| V33 | TOOL KIT-ROAD, EMERGENCY |
| V46 | BUMPER FRT-CHROME |
| V76 | HOOK-TOW |
| V8C | VEHICLE STATEMENT-VEHICLE LABEL CONTENT - NO CERT STATEMENT |
| V8D | VEHICLE STATEMENT-VEHICLE LABEL CONTENT - U.S. FMVSS |
| VBJ | ACCESSORY-UNDERSEAT STORAGE |
| VK3 | LICENSE PLATE FRONT-FRT MOUNTING PKG |
| VKW | ACCESSORY-ORGANIZER - FRONT CONSOLE |
| VKY | ACCESSORY-DOOR HANDLES - ALTERNATE FINISH - CHROME |
| VT7 | OWNERS MANUAL-ENGLISH LANGUAGE |
| VTG | ACCESSORY-INTERIOR TRIM KIT |
| VTS | OWNERS MANUAL-SPANISH LANGUAGE |
| VV4 | COMMUNICATION EQUIP-MOBILE INTERNET CONNECTIVITY |
| VWX | GRILLE-BASE VEHICLE |
| VXT | VEHICLE TYPE-INCOMPLETE |
| VYU | PROVISIONS-SNOW PLOW PREP |
| WMK | VIN MODEL YEAR-2019 |
| WN9 | PROCESSING-SPECIAL DELIVERY REQUSTED, NOT LEAD UNIT |
| WOJ | ACCESSORY-DOOR COVER - PET PROTECTOR - DESIGN 1 |
| X88 | MARKET BRAND-CHEVROLET |
| XL7 | FREQUENCIES RATING-315 MHZ, LONG DISTANCE |
| YE9 | PACKAGE, CONVENIENCE-COMFORT & DECOR LEVEL #3 |
| YF2 | SALES PACKAGE-AMBULANCE UPFITTER |
| YM8 | IDENTIFICATION-LIMITED PERSONALIZATION OPTION (LPO) |
| ZY1 | COLOR COMBINATION-SOLID |
| ZY2 | COLOR COMBINATION-TWO TONE |
| ZY3 | COLOR COMBINATION-TWO TONE, SPECIAL |
| ZY4 | COLOR COMBINATION-TWO TONE, DELUXE |

# Section 2

# Body Systems

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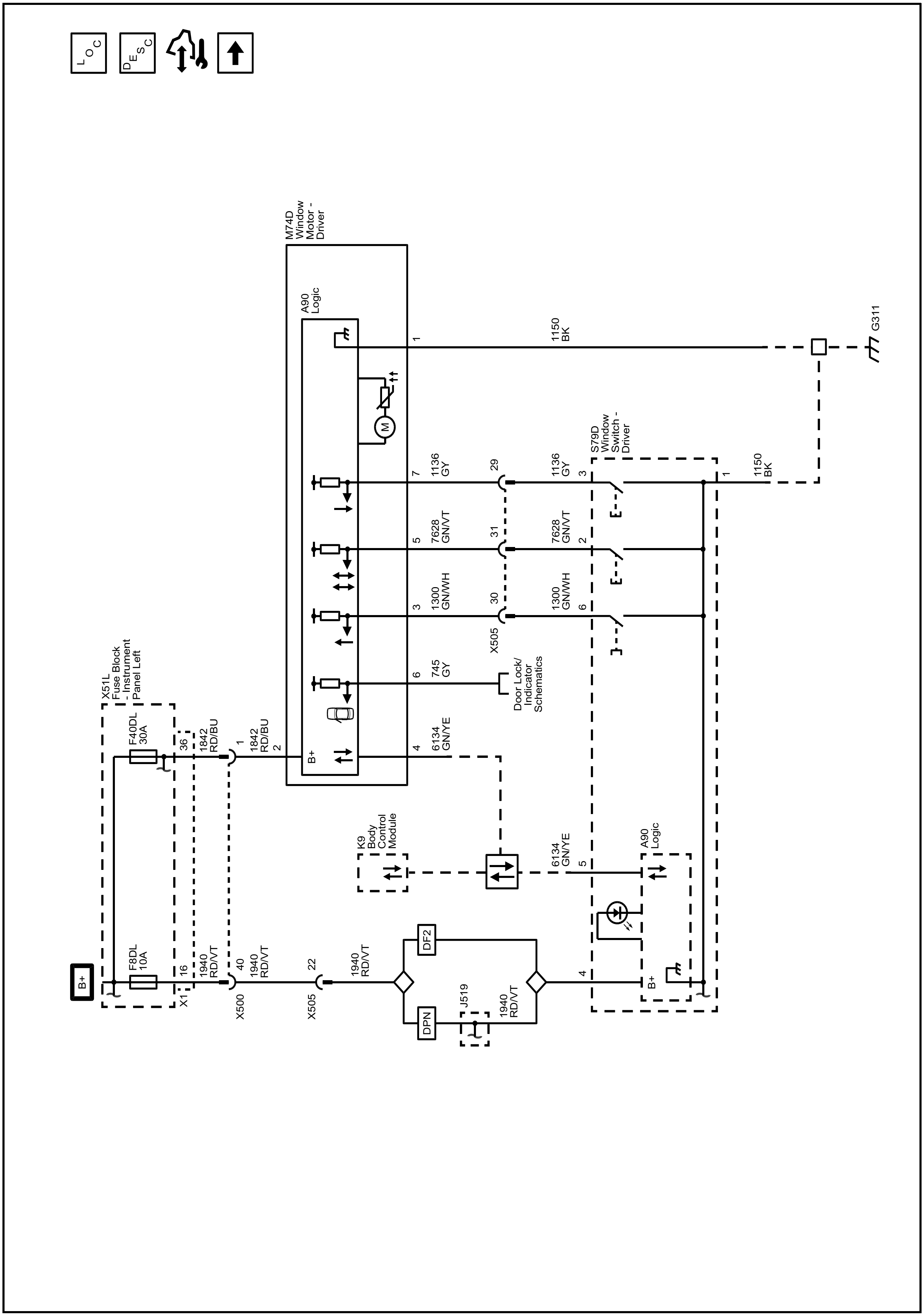
BLANK

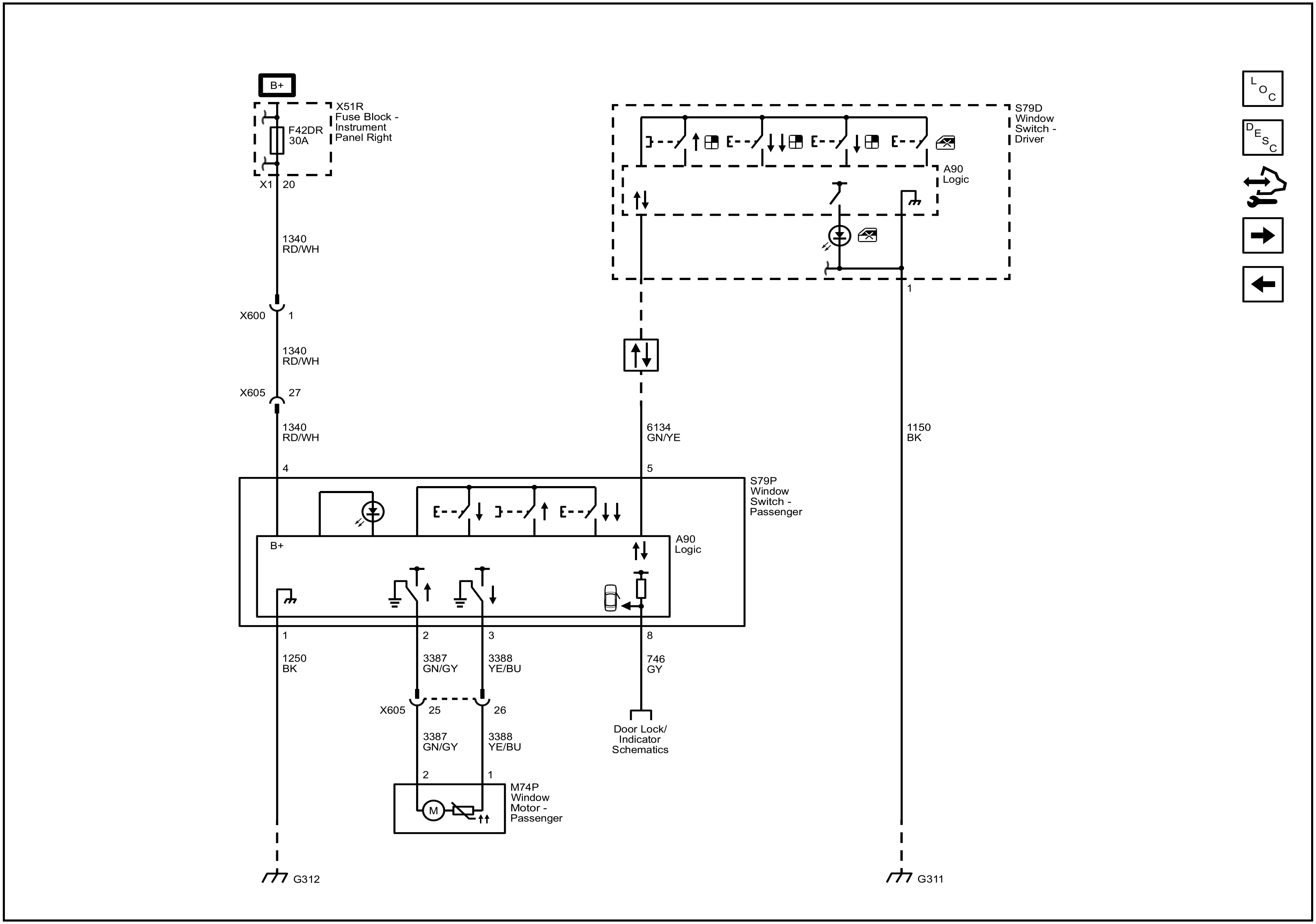
# Fixed and Moveable Windows

## Schematic and Routing Diagrams

## Moveable Window Schematics (Driver Door (A31))

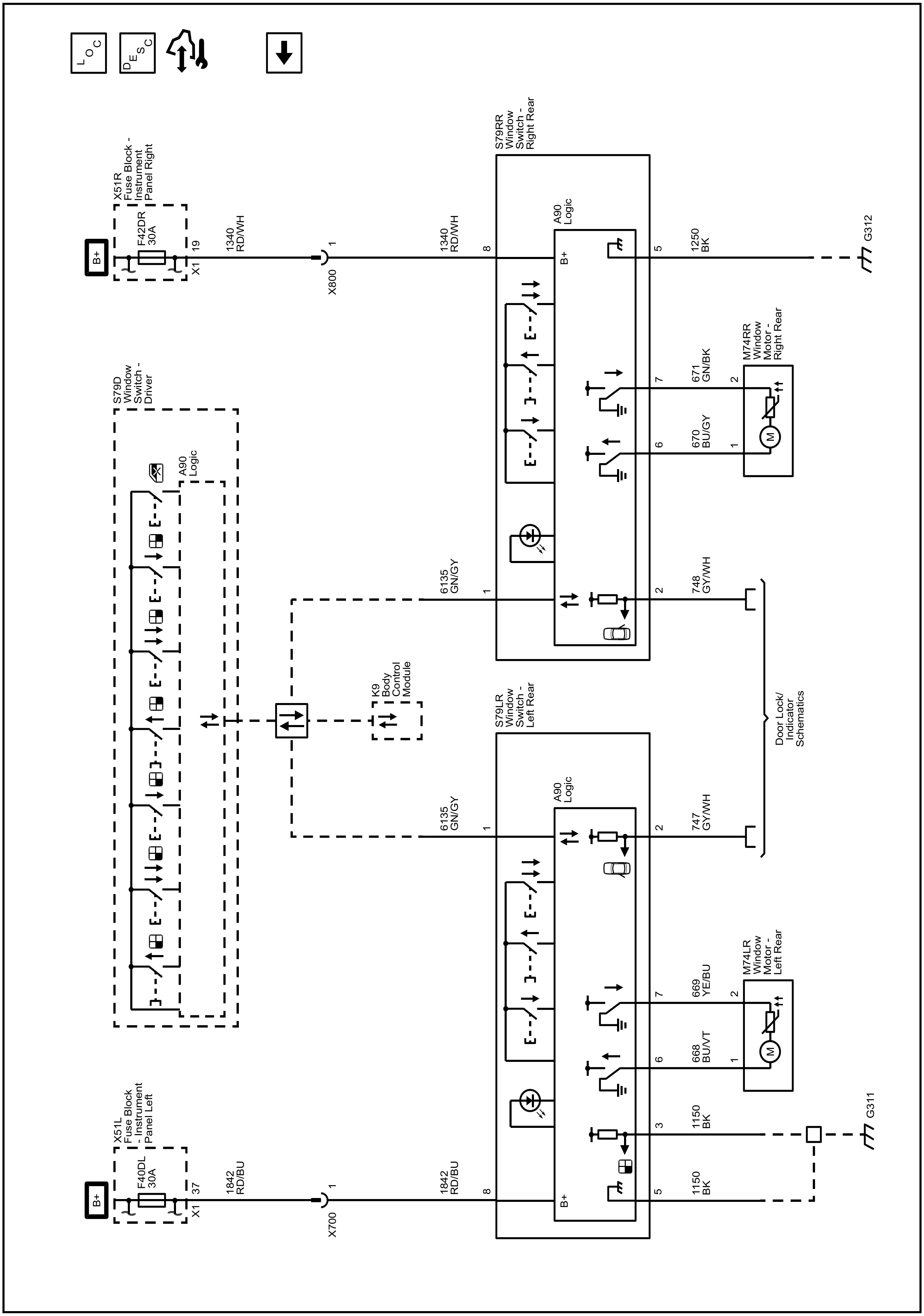

4914456
LOC
DESC
M74D Window Motor - Driver
A90 Logic
1
1150 BK
G311
7
1136 GY
29
1136 GY
3
5
7628 GN/VT
31
7628 GN/VT
2
3
1300 GN/WH
30
1300 GN/WH
6
X505
6
745 GY
Door Lock/ Indicator Schematics
S79D Window Switch - Driver
1
1150 BK
X51L Fuse Block - Instrument Panel Left
F40DL 30A
36
1842 RD/BU
1
1842 RD/BU
2
B+
4
6134 GN/YE
M
K9 Body Control Module
6134 GN/YE
5
A90 Logic
B+
F8DL 10A
16
1940 RD/VT
X1
40
1940 RD/VT
X500
22
X505
1940 RD/VT
DF2
DPN
J519
1940 RD/VT
4
B+

## Moveable Window Schematics (Passenger Door (A31))

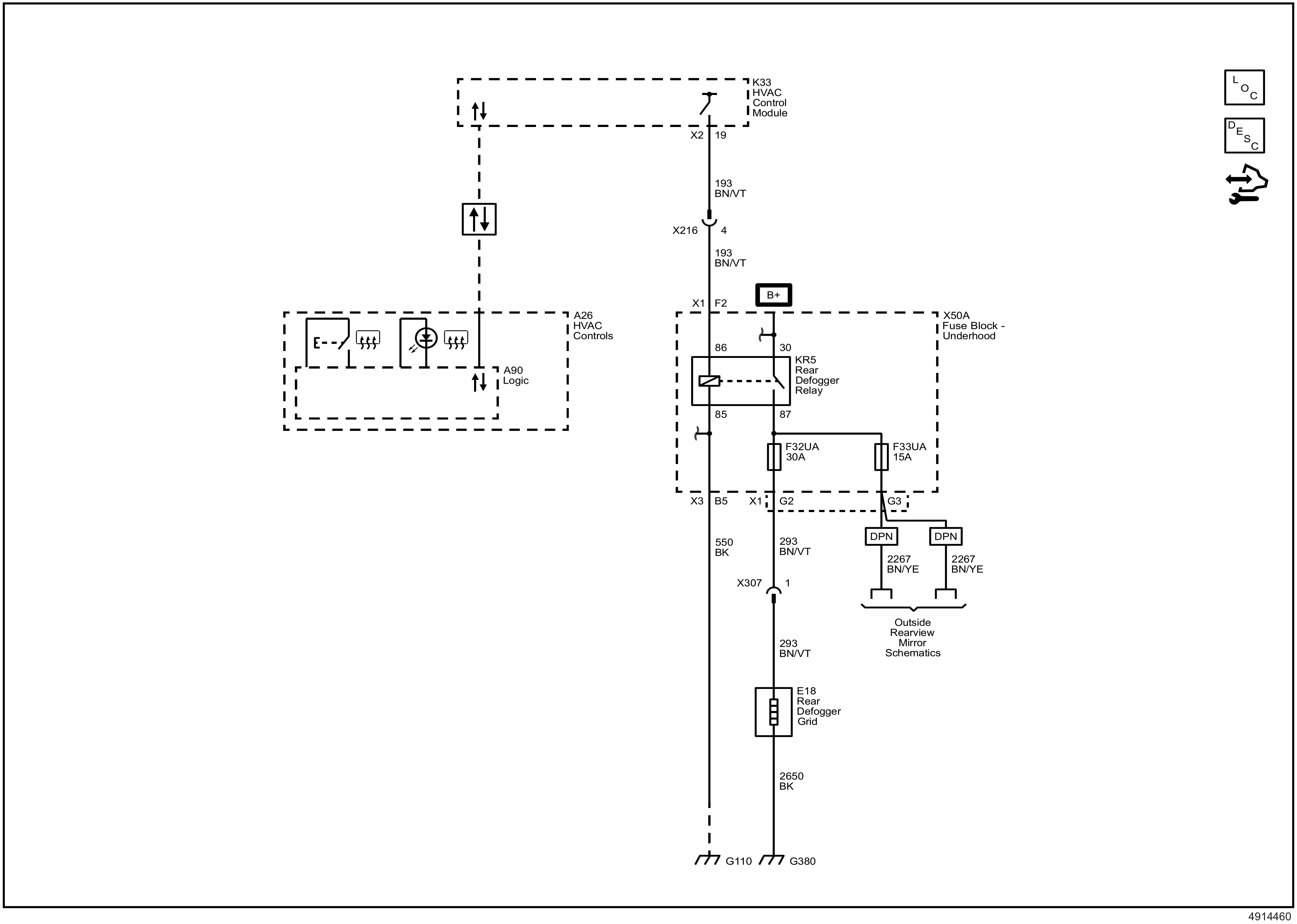

B+
X51R
Fuse Block -
Instrument
Panel Right
F42DR
30A
X1 20
1340
RD/WH
X600 1
1340
RD/WH
X605 27
1340
RD/WH
4
S79D
Window
Switch -
Driver
A90
Logic
1
6134
GN/YE
5
1150
BK
S79P
Window
Switch -
Passenger
A90
Logic
B+
1
2
3
8
1250
BK
3387
GN/GY
3388
YE/BU
746
GY
X605 25
26
3387
GN/GY
3388
YE/BU
Door Lock/
Indicator
Schematics
2
1
M
M74P
Window
Motor -
Passenger
G312
G311
L O C
D E S C

4914457

## Moveable Window Schematics (Rear Doors (Crew Cab))


4914458
LOC
DESC
B+
F42DR
30A
X51R
Fuse Block -
Instrument
Panel Right
X1 19
1340
RD/WH
X800 1
1340
RD/WH
8
S79RR
Window
Switch -
Right Rear
A90
Logic
B+
5
1250
BK
G312
7
671
GN/BK
6
670
BU/GY
2
1
M
M74RR
Window
Motor -
Right Rear
1
6135
GN/GY
2
748
GY/WH
S79D
Window
Switch -
Driver
A90
Logic
K9
Body
Control
Module
Door Lock/
Indicator
Schematics
S79LR
Window
Switch -
Left Rear
A90
Logic
1
6135
GN/GY
2
747
GY/WH
7
669
YE/BU
6
668
BU/VT
M74LR
Window
Motor -
Left Rear
2
1
M
3
1150
BK
G311
5
1150
BK
B+
8
1842
RD/BU
X700 1
1842
RD/BU
X1 37
F40DL
30A
X51L
Fuse Block
- Instrument
Panel Left
B+

## Defogger Schematics (Defogger (C49/DPN))


K33
HVAC
Control
Module
X2 19
193
BN/VT
X216 4
193
BN/VT
B+
X1 F2
X50A
Fuse Block -
Underhood
86
30
KR5
Rear
Defogger
Relay
85
87
F32UA
30A
F33UA
15A
X3 B5
X1 G2
G3
DPN
DPN
550
BK
293
BN/VT
2267
BN/YE
2267
BN/YE
X307 1
Outside
Rearview
Mirror
Schematics
293
BN/VT
E18
Rear
Defogger
Grid
2650
BK
G110
G380
A26
HVAC
Controls
A90
Logic
LOC
DESC
4914460

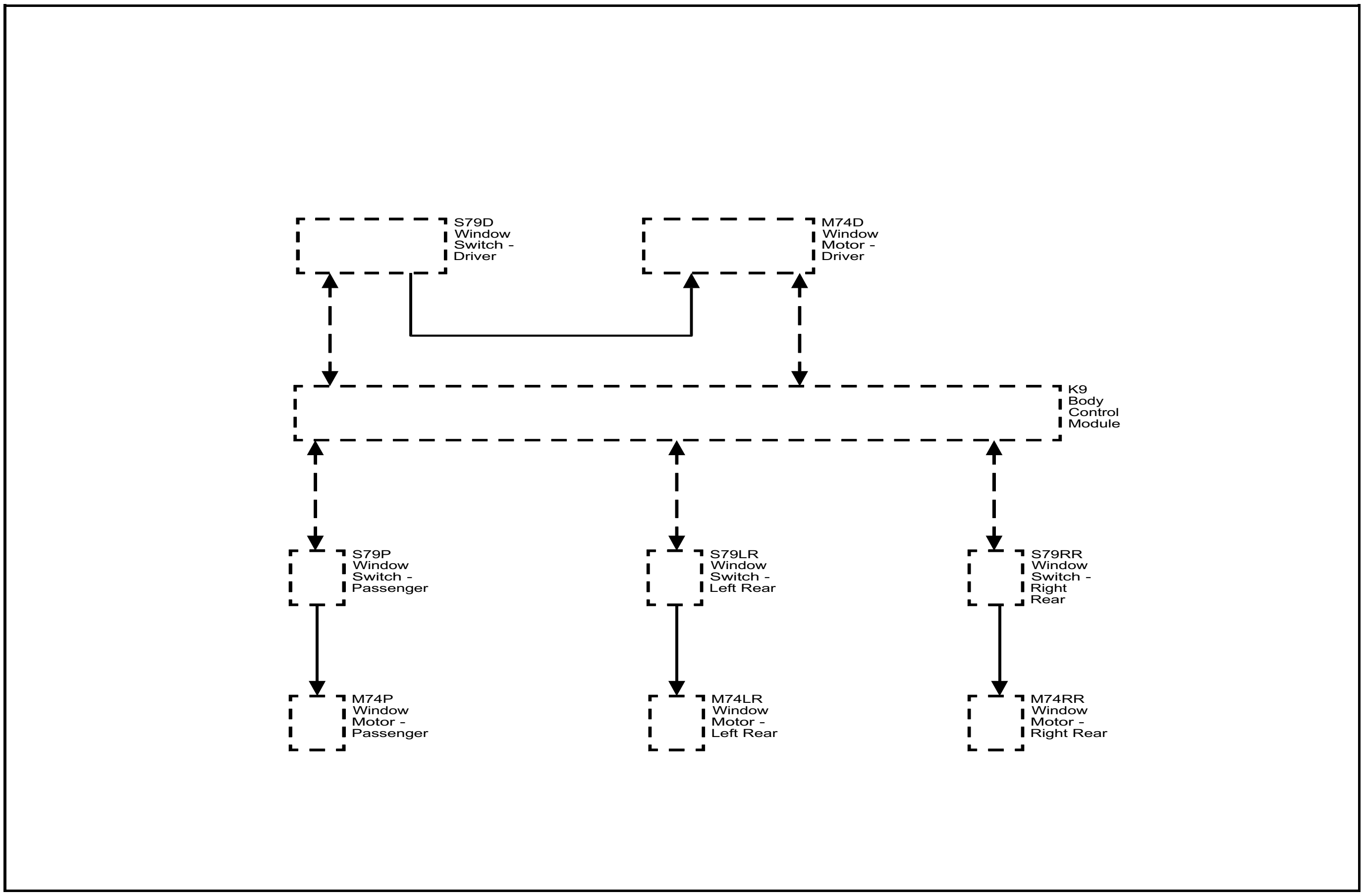
# Description and Operation

## Power Windows Description and Operation

### Power Windows System Components

The power window system consists of the following components:

- Driver window switch
- Passenger window switch
- Left rear window switch
- Right rear window switch
- Right rear door latch
- Left rear door latch
- Window motors in each of the doors
- 30A Fuse
- Body control module (BCM)


S79D Window Switch - Driver
M74D Window Motor - Driver
K9 Body Control Module
S79P Window Switch - Passenger
S79LR Window Switch - Left Rear
S79RR Window Switch - Right Rear
M74P Window Motor - Passenger
M74LR Window Motor - Left Rear
M74RR Window Motor - Right Rear

3461357

### Driver Express Up and Express Down Power Window Motor

The driver door contains a window motor is smart motor that will detect excessive resistance while performing the express up function and automatically reverse direction to prevent injury to any occupants that may become trapped between the closing window and the door frame. The automatic reverse safety feature can be overridden by pulling and holding the window switch.

The logic circuit within the window motor monitors the up, down and express signal circuits which are normally equal to B+ voltage. When a switch is used on the driver window switch, the contacts close causing a voltage drop within the appropriate signal circuit. The driver window motor will detect the voltage drop and will command the window to move in the direction requested.

## Passenger, Left Rear and Right Rear Express Down Window Motors

For the passenger, right rear and left rear doors, when their window switch is pressed in the down position, battery positive voltage is applied to their respective window motor control circuit and ground to the other window motor control circuit causing that window to open. When the individual window switch is pulled in the up position, voltage and ground is applied to the window motor in the opposite direction causing that window to close. The return path to ground is supplied through the inactive control circuit being normally grounded through the window switch.

Each passenger and rear window switch communicates to the BCM by a serial data circuit. When the driver wishes to control the passenger, left rear or right rear window, the driver will use the appropriate switch on the driver window switch. When this switch is used, a serial data message is sent to the BCM requesting a window motor command, the BCM will then send a serial data message to the appropriate door window switch which will then command that window to move in the direction requested.

## Lockout Switch Feature

The driver window switch contains a window lockout switch, when the driver presses the window lockout switch, a serial data message is sent to the BCM which will send a disable command to the rear window switches, the rear window switches will then ignore all functions when a passenger uses the rear window switch. The rear window motor commands will still function normally when the driver uses the appropriate switches on the driver window switch.

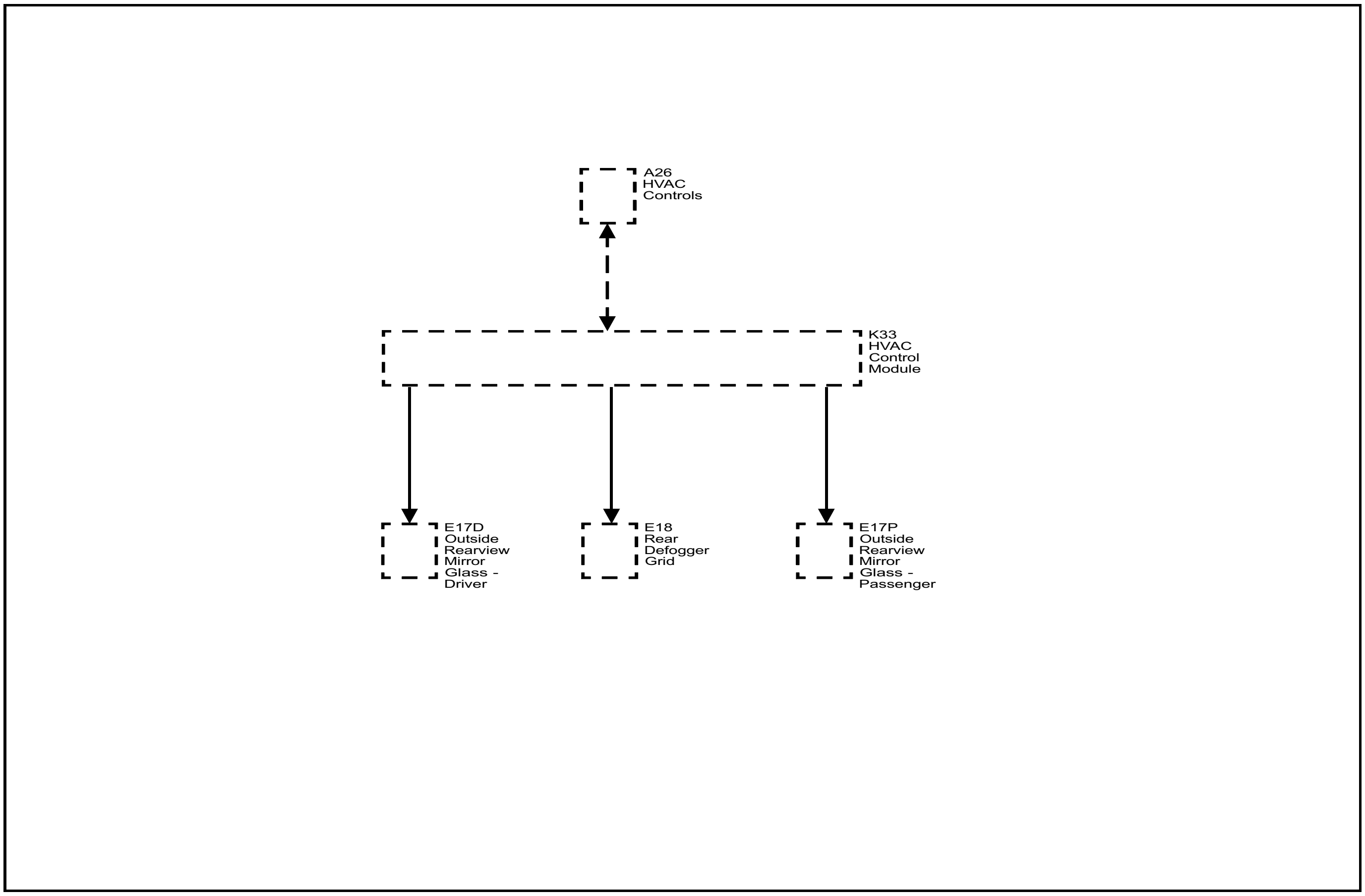
# Rear Window Defogger Description and Operation

## Rear Window Defogger System Components

The rear window defogger system consists of the following components:

- HVAC Control Module
- HVAC Controls
- Rear Defogger Relay
- Rear Defogger Grid
- Driver Outside Rearview Mirror
- Passenger Outside Rearview Mirror
- 40A Fuse

## A26-K33-X50A Defogger Block Diagram



## Rear Window Defogger Operation

The rear defog control system utilizes a single zone backlight design, driven with a single relay configuration. Additionally, up to two outside rear view mirrors can be heated if required. A switch for the customer to control the system is provided within the HVAC controls. Also included in the HVAC controls is an indicator to inform the customer with the current state of the system. The system is only operational when engine is running or during remote start.

Pressing the heated rear window switch causes the HVAC controls to send a serial data message to the HVAC control module requesting rear window defog operation. The HVAC control module upon receipt of the serial data message will provide voltage to the coil side of the rear defogger relay, this will energize the relay causing the relay switch contacts to close allowing B+ voltage to flow through the rear defogger grid control circuit to the rear defogger grid.

When the rear heated rear window switch is pressed and the engine is running, the rear window defogger grid will activate and will turn off automatically depending upon the vehicle speed (refer to owner’s manual for rear window defogger operation cycles)

## Heated Mirrors

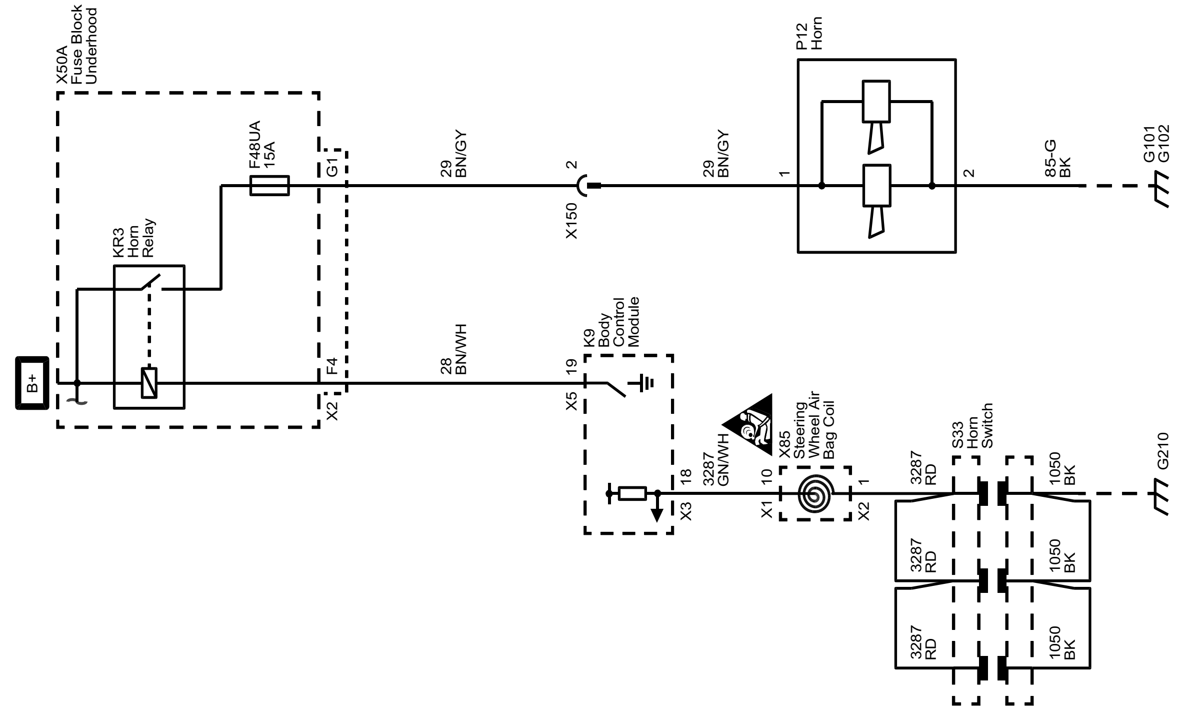
The heated mirrors are also controlled through the rear defogger relay. Whenever the rear window defogger is turned on battery voltage is supplied to the mirror heater elements through the left and right mirror heater element control circuits.

# Horns and Pedestrian Alerts

## Schematic and Routing Diagrams

# Horn Schematics (Horn)

4914480


B+
X50A
Fuse Block - Underhood
KR3
Horn
Relay
F48UA
15A
G1
F4
X2
29
BN/GY
28
BN/WH
2
X150
29
BN/GY
P12
Horn
1
2
85-G
BK
G101
G102
K9
Body
Control
Module
X5
19
X3
18
3287
GN/WH
X85
Steering
Wheel Air
Bag Coil
X1
10
X2
1
S33
Horn
Switch
3287
RD
1050
BK
3287
RD
1050
BK
3287
RD
1050
BK
G210

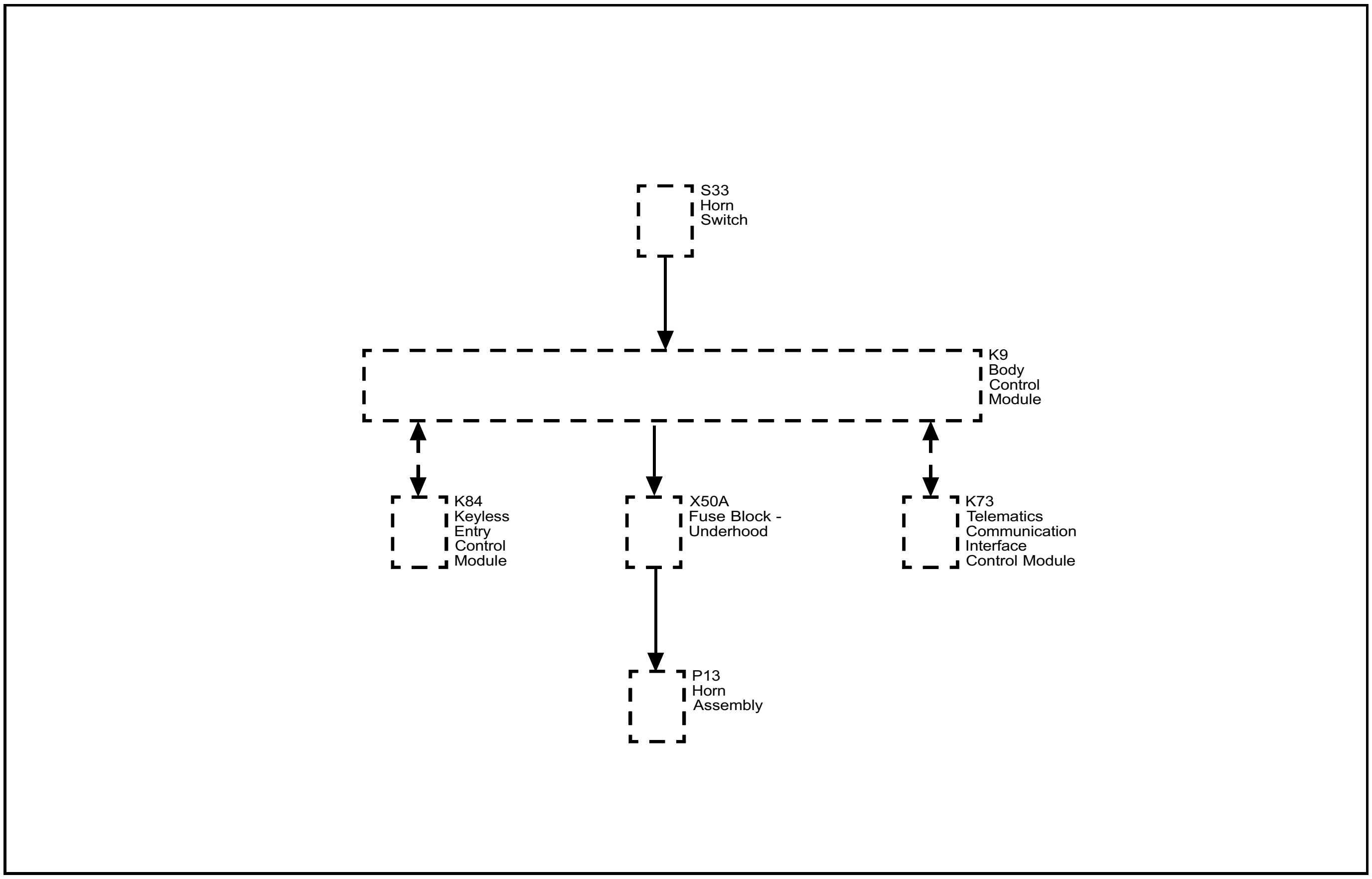
# Description and Operation

## Horns System Description and Operation

### System Description

The horn system consists of the following components:

- HORN fuse
- Underhood fuse block (Contains PCB horn relay)
- Horn switch
- Horn assembly
- Body control module (BCM)



3270443

### System Operation

The vehicle horn system is activated under the following conditions:

- When the horn switch is depressed
- The BCM commands the horns ON under any of the following conditions:
  - – When the content theft deterrent system detects a vehicle intrusion—For further information refer to *Theft Systems Description and Operation* in the Service Manual.
  - – When the panic button is depressed on the remote control door lock transmitter—For further information refer to *Keyless Entry System Description and Operation on page 8-9*.
  - – When the keyless entry system is used to lock the vehicle, a horn chirp may sound to notify the driver that the vehicle has been locked. The notification feature may be enabled or disabled through personalization. For further information refer to *Keyless Entry System Description and Operation on page 8-9*.
  - – When the OnStar® system is used to sound the horns if equipped—For further information, refer to *OnStar Description and Operation* in the Service Manual.

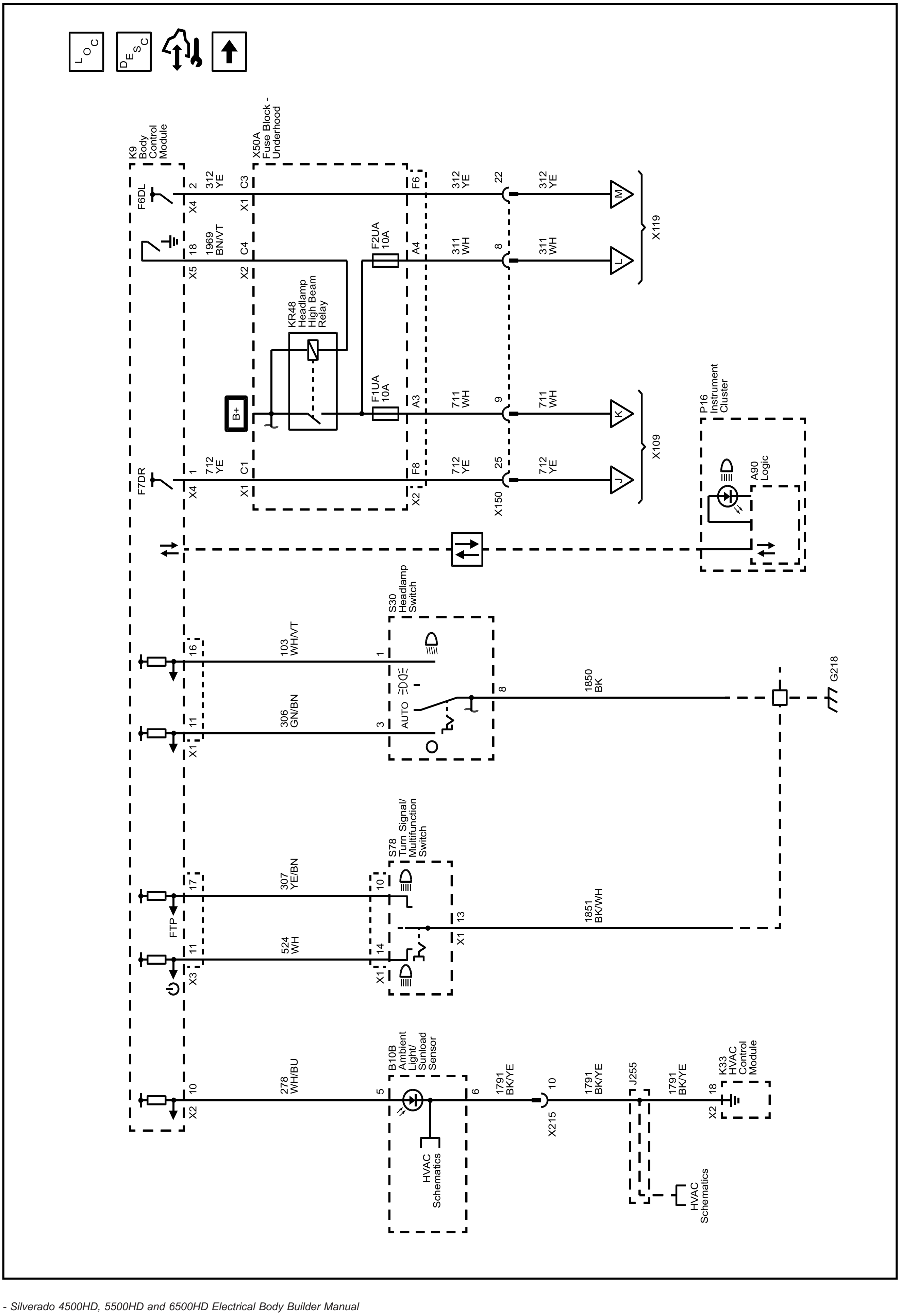
### Circuit Operation

Battery positive voltage is applied at all times to the horn relay coil and the horn relay switch. Pressing either of the horn switches applies ground to the horn relay control circuit. The BCM may also apply ground to the horn relay control circuit as described above. When the horn relay control circuit is grounded, the horn relay is energized and battery positive voltage is applied to the horns through the horn control circuit. The horns sound as long as ground is applied to the horn relay control circuit.

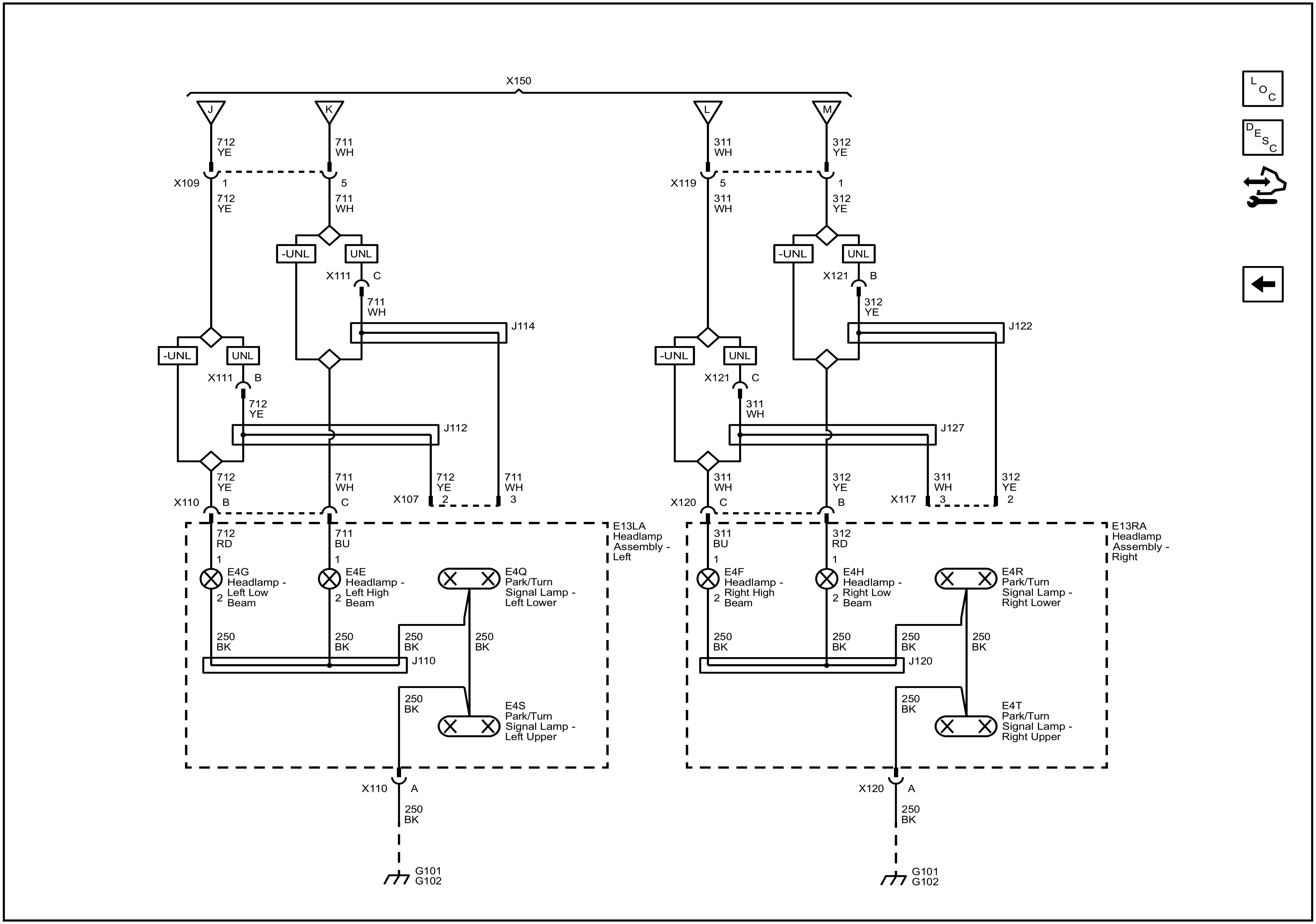
# Lighting

## Schematic and Routing Diagrams

# Headlights/Daytime Running Lights (DRL) Schematics (Headlight Controls)

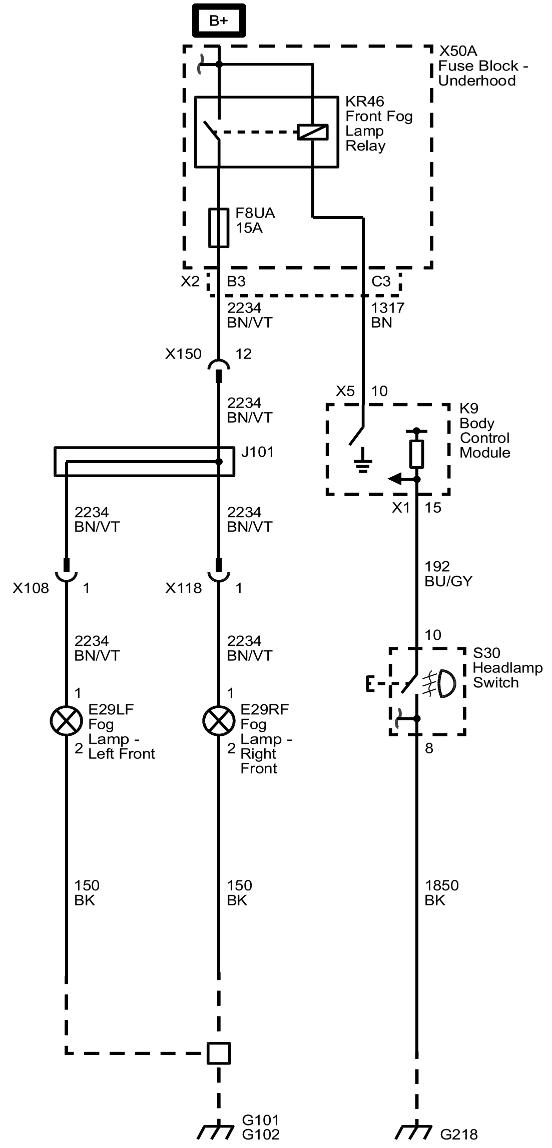

LOC
DESC
K9 Body Control Module
X50A Fuse Block - Underhood
F6DL
X4 2 312 YE
X1 C3 F6 312 YE 22 312 YE M
X5 18 1969 BN/VT
X2 C4
F2UA 10A
A4 311 WH 8 311 WH L
X119
KR48 Headlamp High Beam Relay
B+
F1UA 10A
A3 711 WH 9 711 WH K
X109
F7DR
X4 1 712 YE
X1 C1 F8 712 YE 25 712 YE J
X2 X150
P16 Instrument Cluster
A90 Logic
S30 Headlamp Switch
16 103 WH/VT 1
11 306 GN/BN 3
X1
AUTO
8 1850 BK
G218
S78 Turn Signal/ Multifunction Switch
17 307 YE/BN 10
FTP
11 524 WH 14
X3 X1
13 1851 BK/WH
X1
B10B Ambient Light/ Sunload Sensor
X2 10 278 WH/BU 5
6 1791 BK/YE
X215 10 1791 BK/YE
J255
1791 BK/YE
18 X2
K33 HVAC Control Module
HVAC Schematics
HVAC Schematics
4914483

# Headlights/Daytime Running Lights (DRL) Schematics (Headlamps)


LOC
DESC
X150
J
K
L
M
712 YE
711 WH
311 WH
312 YE
X109
1
5
X119
5
1
-UNL
UNL
X111 C
X121 B
X111 B
X121 C
J114
J122
J112
J127
X110 B
C
X107 2 3
X120 C
B
X117 3 2
712 RD
711 BU
311 BU
312 RD
E13LA Headlamp Assembly - Left
E13RA Headlamp Assembly - Right
E4G Headlamp - Left Low Beam
E4E Headlamp - Left High Beam
E4Q Park/Turn Signal Lamp - Left Lower
E4S Park/Turn Signal Lamp - Left Upper
E4F Headlamp - Right High Beam
E4H Headlamp - Right Low Beam
E4R Park/Turn Signal Lamp - Right Lower
E4T Park/Turn Signal Lamp - Right Upper
250 BK
J110
J120
X110 A
X120 A
G101 G102

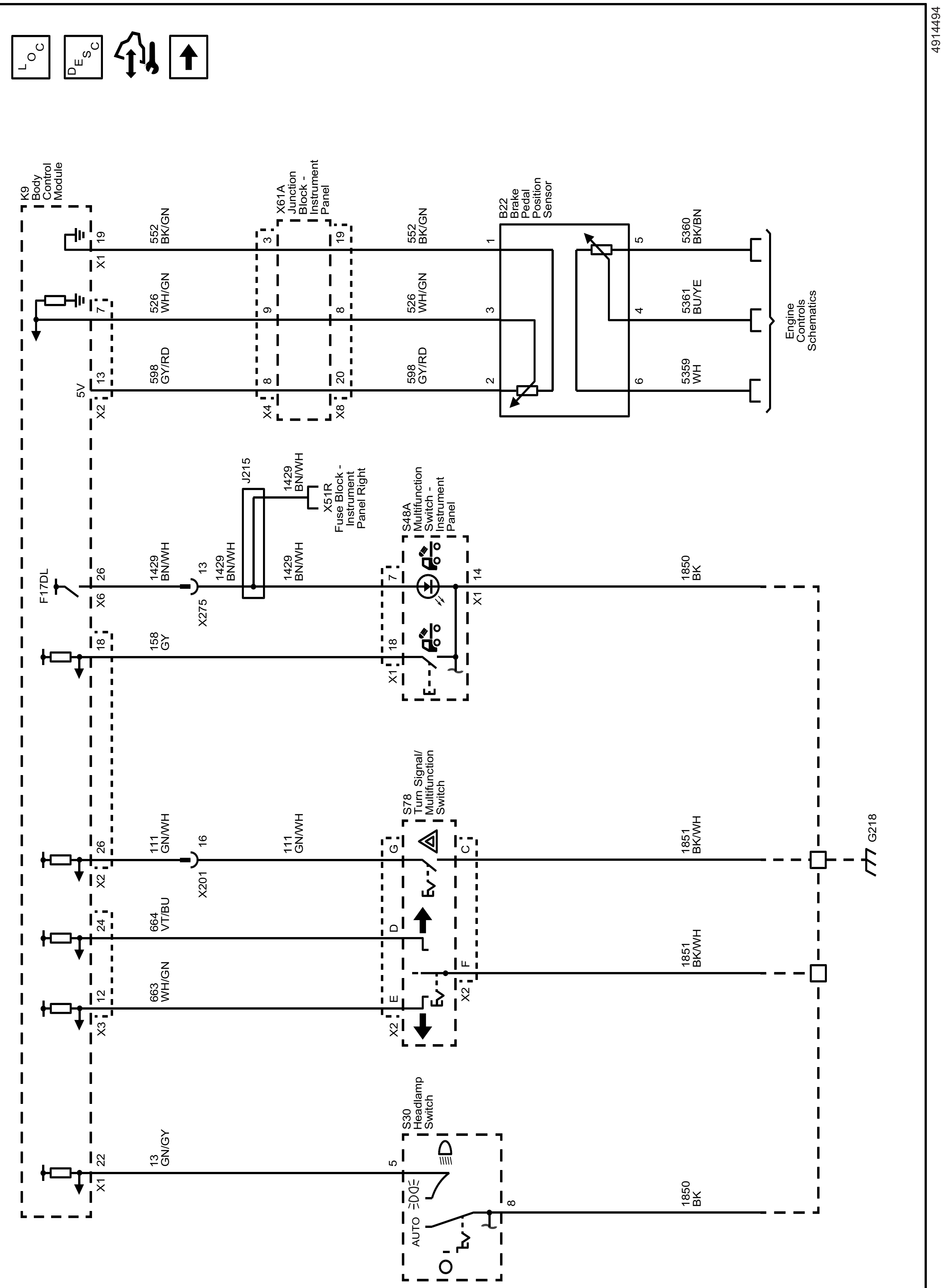
4914490

## Fog Lights Schematics (Fog Lamps (T3U))

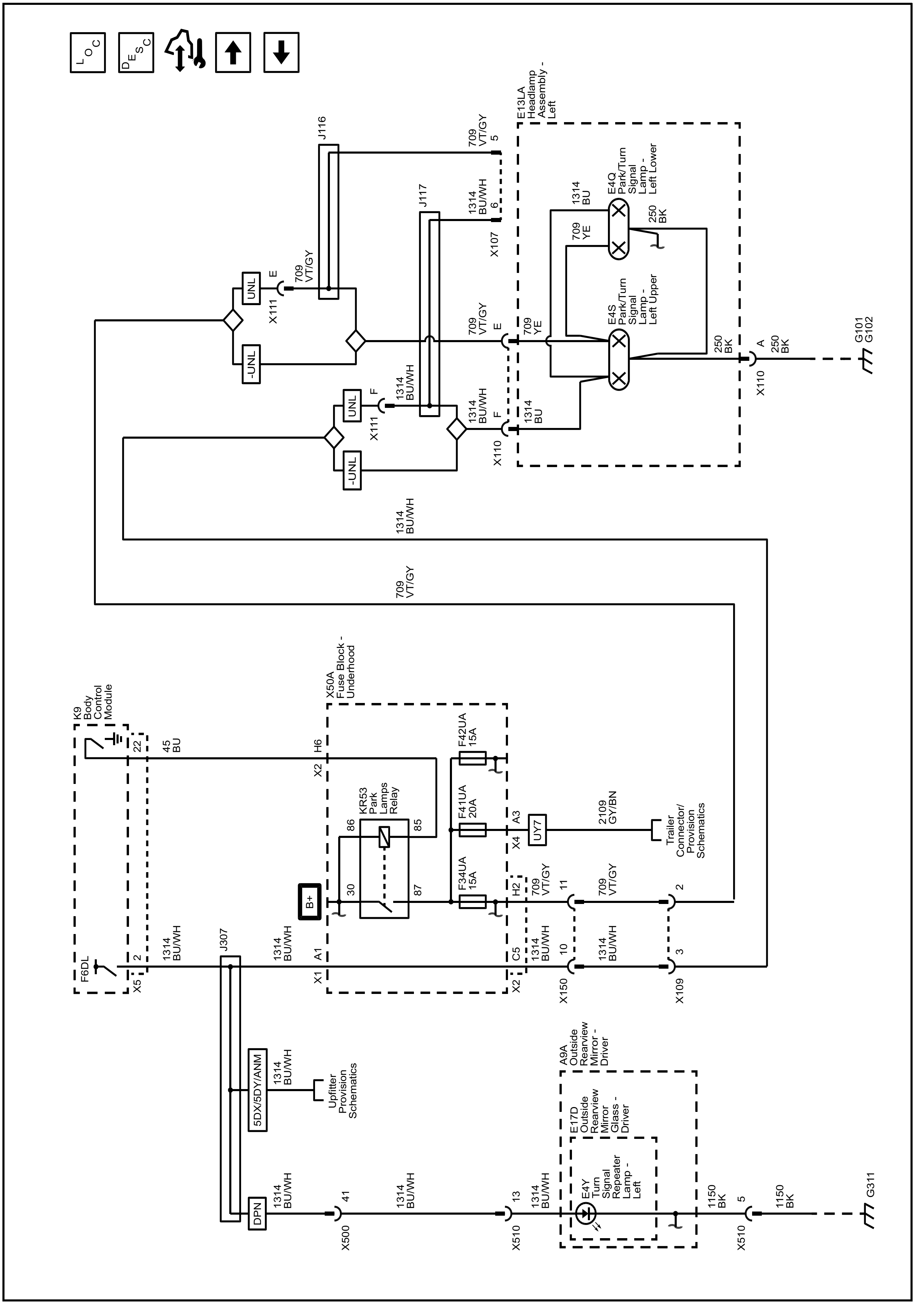

B+
X50A
Fuse Block -
Underhood
KR46
Front Fog
Lamp
Relay
F8UA
15A
X2
B3
C3
2234
BN/VT
1317
BN
X150
12
2234
BN/VT
X5
10
K9
Body
Control
Module
J101
X1
15
2234
BN/VT
2234
BN/VT
192
BU/GY
X108
1
X118
1
2234
BN/VT
2234
BN/VT
10
S30
Headlamp
Switch
1
E29LF
Fog
Lamp -
2
Left Front
1
E29RF
Fog
Lamp -
2
Right
Front
8
150
BK
150
BK
1850
BK
G101
G102
G218

4914491

## Exterior Lights Schematics (Exterior Lights Controls)

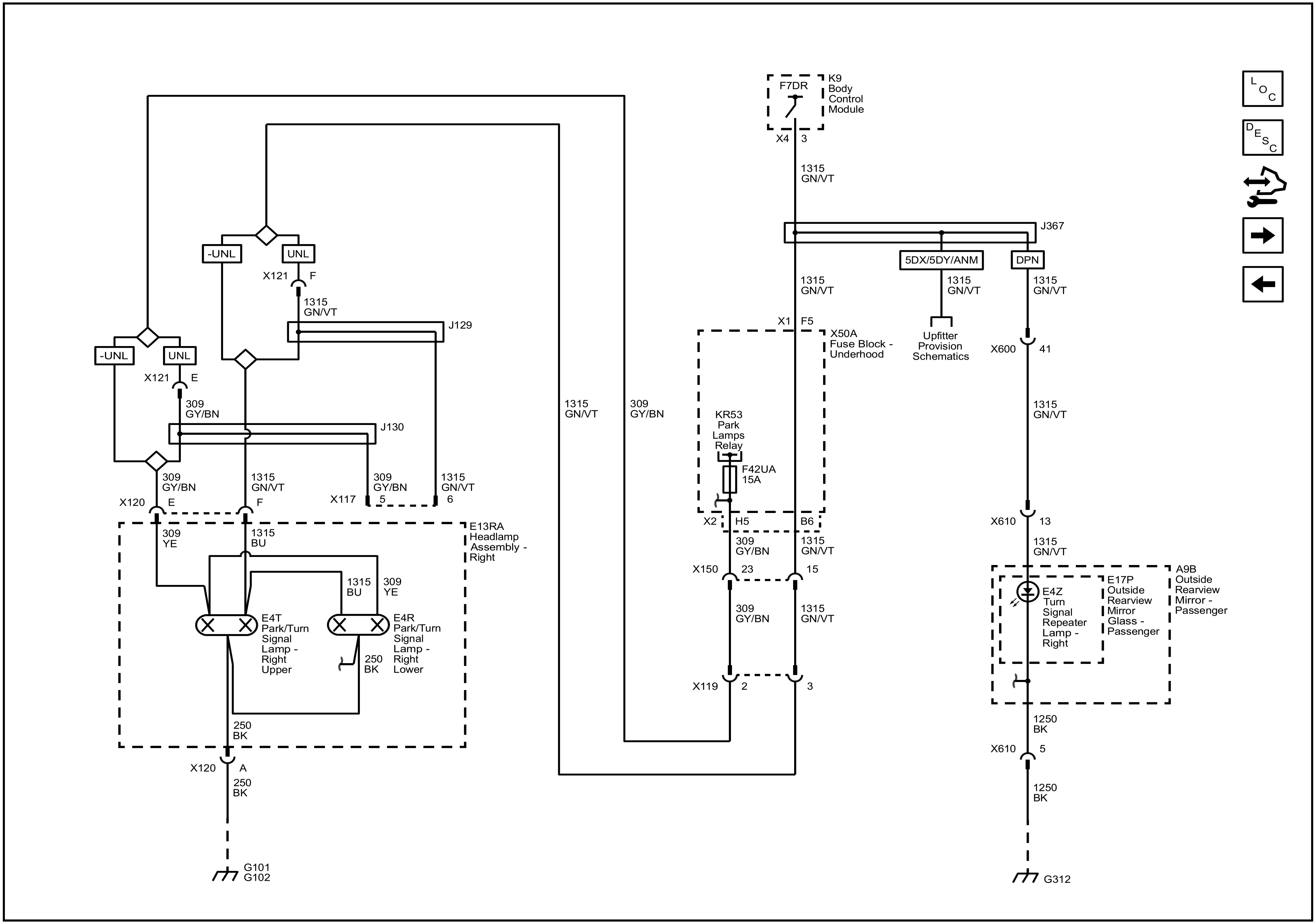

4914494
LOC
DESC
K9 Body Control Module
X1 19
552 BK/GN
X61A Junction Block - Instrument Panel
3
19
552 BK/GN
B22 Brake Pedal Position Sensor
1
5
5360 BK/BN
X2 7
526 WH/GN
9
8
526 WH/GN
3
4
5361 BU/YE
Engine Controls Schematics
5V
X2 13
598 GY/RD
X4 8
X8 20
598 GY/RD
2
6
5359 WH
F17DL
X6 26
1429 BN/WH
X275 13
1429 BN/WH
J215
1429 BN/WH
X51R Fuse Block - Instrument Panel Right
1429 BN/WH
S48A Multifunction Switch - Instrument Panel
7
X1 14
1850 BK
18
158 GY
X1 18
S78 Turn Signal/ Multifunction Switch
X2 26
111 GN/WH
X201 16
111 GN/WH
G
C
1851 BK/WH
G218
24
664 VT/BU
D
F
1851 BK/WH
X3 12
663 WH/GN
X2 E
X2
S30 Headlamp Switch
X1 22
13 GN/GY
5
8
1850 BK
AUTO
O

# Exterior Lights Schematics (Park and Turn Signal Lamps - Left Front)

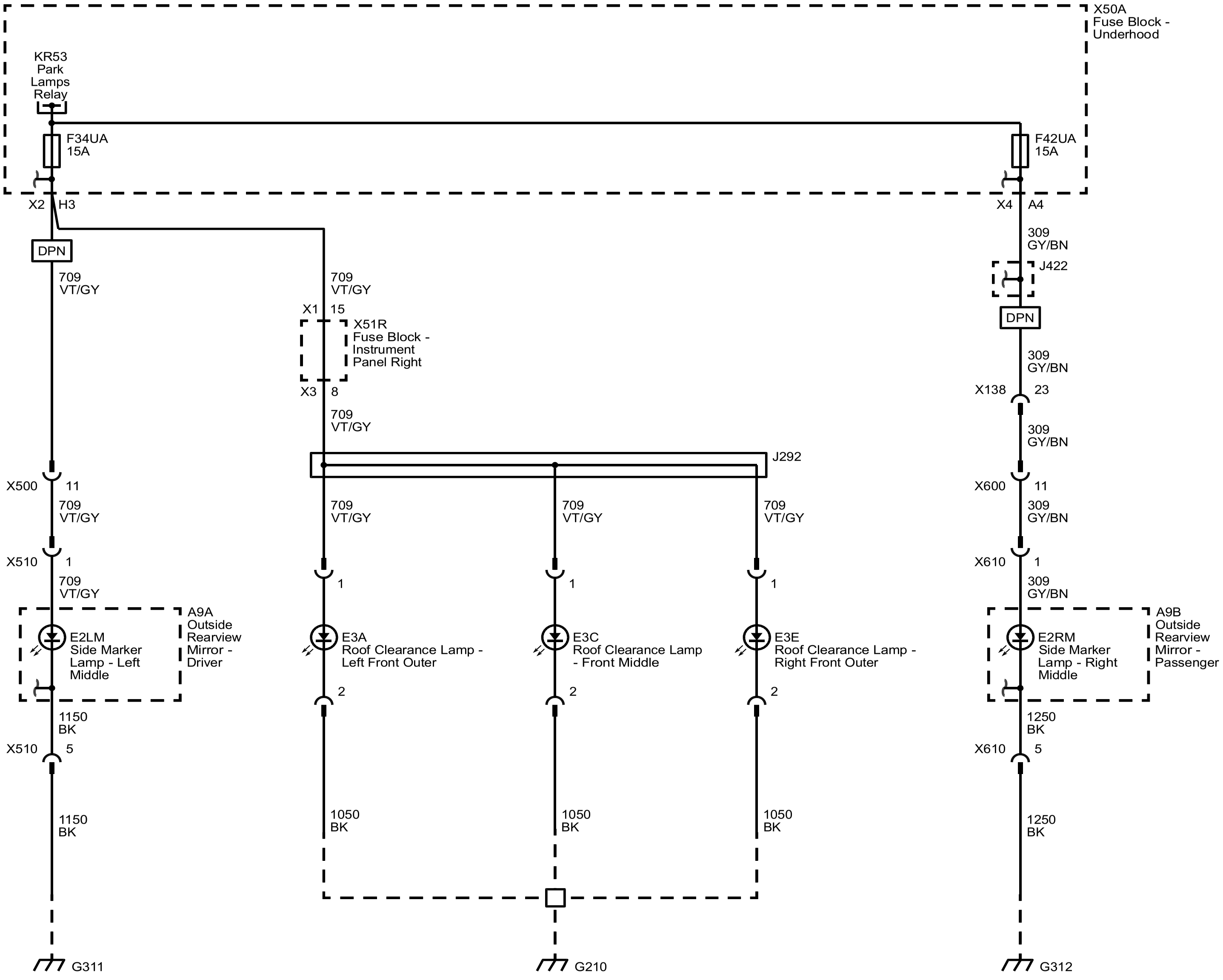

LOC
DESC
K9 Body Control Module
F6DL
X5
2
22
45 BU
1314 BU/WH
J307
5DX/5DY/ANM
1314 BU/WH
Upfitter Provision Schematics
DPN
1314 BU/WH
X500
41
1314 BU/WH
X510
13
1314 BU/WH
A9A Outside Rearview Mirror - Driver
E17D Outside Rearview Mirror Glass - Driver
E4Y Turn Signal Repeater Lamp - Left
1150 BK
X510
5
1150 BK
G311
X50A Fuse Block - Underhood
B+
X1
A1
1314 BU/WH
X2
H6
KR53 Park Lamps Relay
86
85
30
87
F34UA 15A
F41UA 20A
F42UA 15A
H2
X2
C5
A3
X4
UY7
2109 GY/BN
Trailer Connector/ Provision Schematics
709 VT/GY
11
1314 BU/WH
10
X150
709 VT/GY
2
1314 BU/WH
3
X109
709 VT/GY
1314 BU/WH
UNL
-UNL
E
709 VT/GY
X111
J116
709 VT/GY
5
J117
1314 BU/WH
6
X107
709 VT/GY
E
UNL
-UNL
F
1314 BU/WH
X111
1314 BU/WH
F
X110
E13LA Headlamp Assembly - Left
1314 BU
E4Q Park/Turn Signal Lamp - Left Lower
709 YE
250 BK
E4S Park/Turn Signal Lamp - Left Upper
709 YE
1314 BU
250 BK
A
X110
250 BK
G101
G102

4914496

# Exterior Lights Schematics (Park and Turn Signal Lamps - Right Front)

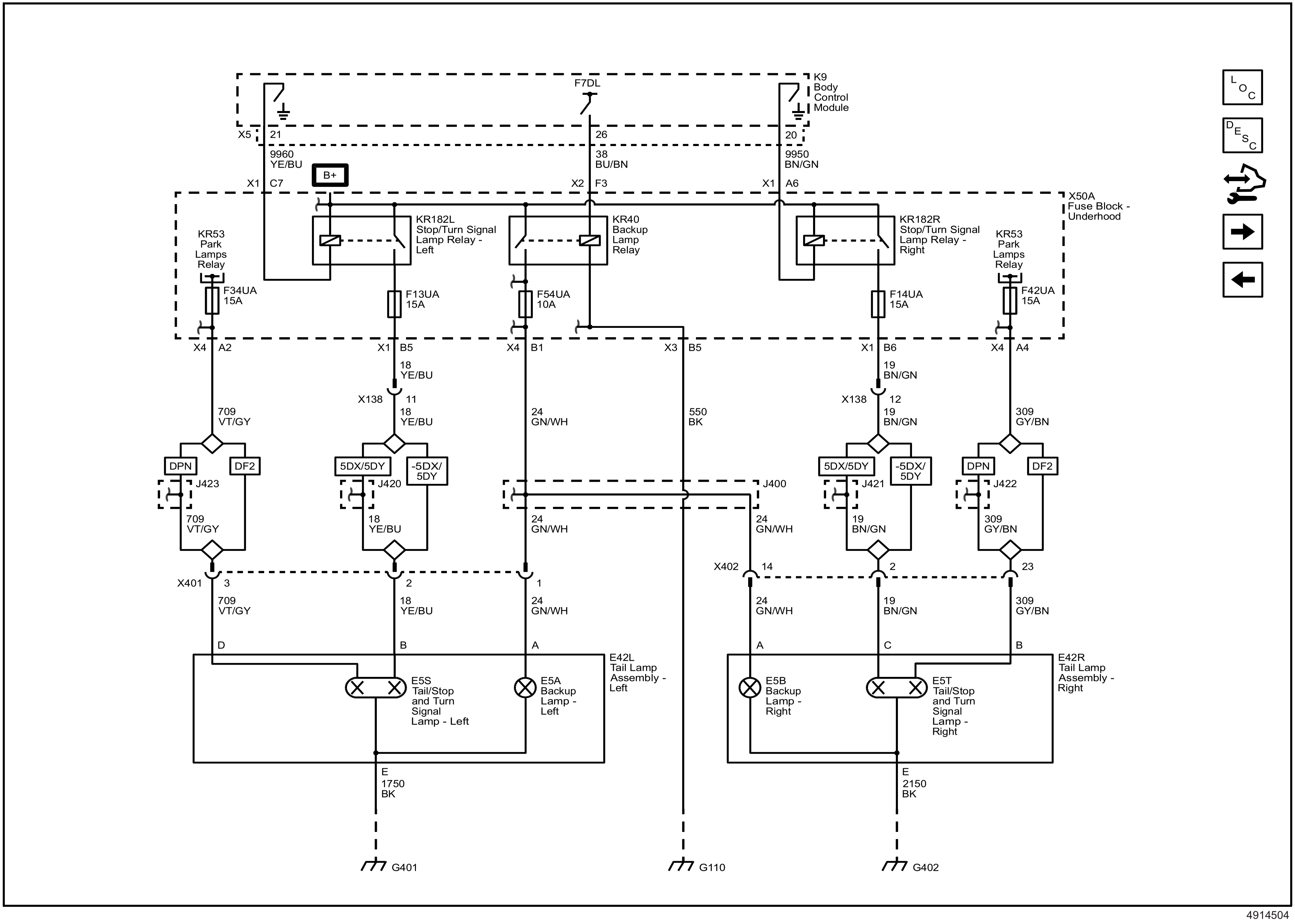

F7DR
K9
Body
Control
Module
X4 3
1315
GN/VT
J367
5DX/5DY/ANM
DPN
1315
GN/VT
Upfitter
Provision
Schematics
X1 F5
X50A
Fuse Block -
Underhood
KR53
Park
Lamps
Relay
F42UA
15A
X2 H5 B6
309
GY/BN
X150 23 15
X119 2 3
X600 41
X610 13
A9B
Outside
Rearview
Mirror -
Passenger
E17P
Outside
Rearview
Mirror
Glass -
Passenger
E4Z
Turn
Signal
Repeater
Lamp -
Right
1250
BK
X610 5
G312
-UNL
UNL
X121 F
X121 E
J129
J130
309
GY/BN
1315
GN/VT
X117 5 6
X120 E F
E13RA
Headlamp
Assembly -
Right
309
YE
1315
BU
E4T
Park/Turn
Signal
Lamp -
Right
Upper
E4R
Park/Turn
Signal
Lamp -
Right
Lower
250
BK
X120 A
G101
G102
4914502

# Exterior Lights Schematics (Park Lamps - Mirror (DPN) and Roof)

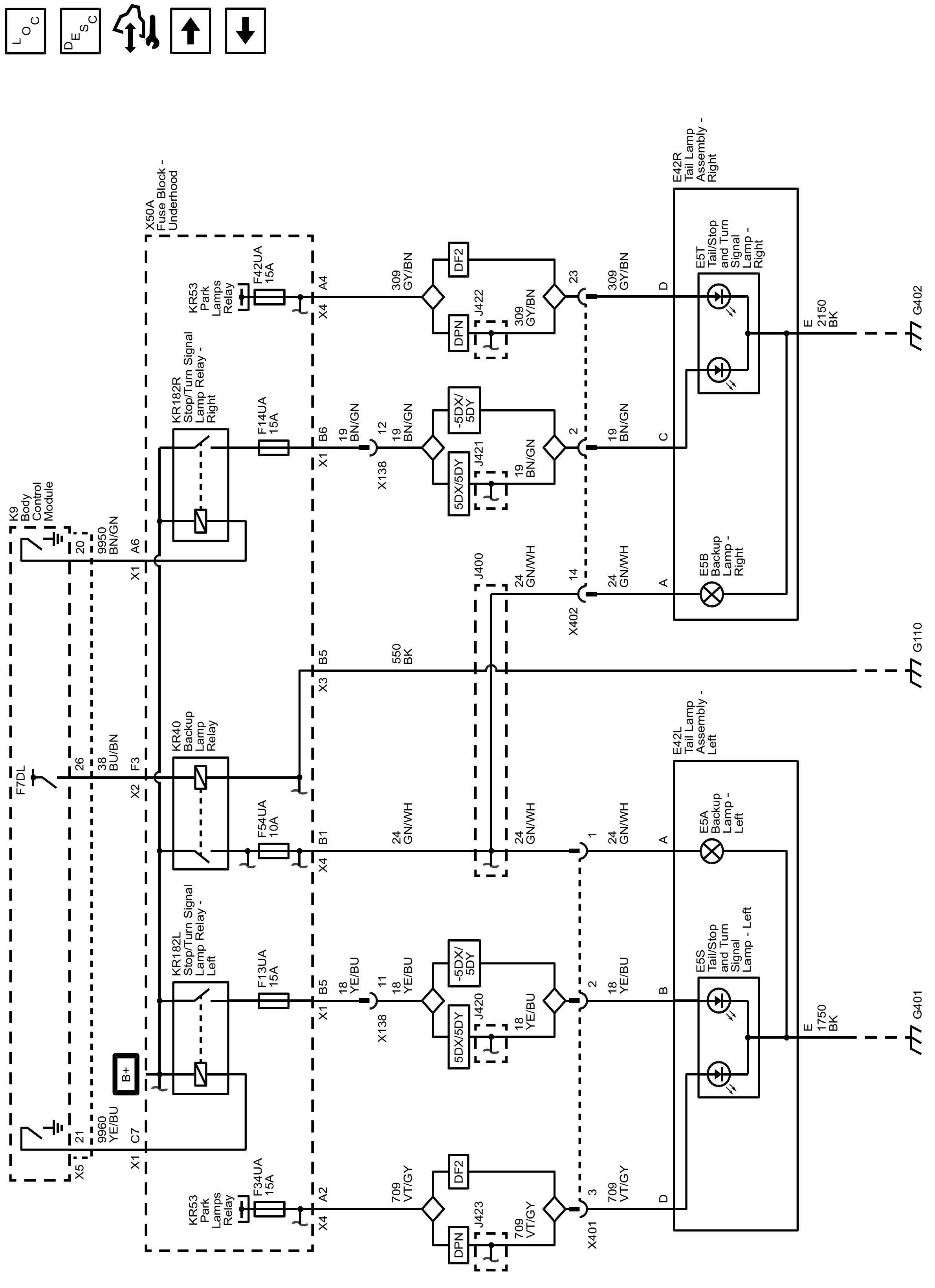

X50A
Fuse Block -
Underhood
KR53
Park
Lamps
Relay
F34UA
15A
F42UA
15A
X2 H3
X4 A4
DPN
709
VT/GY
309
GY/BN
J422
X1 15
X51R
Fuse Block -
Instrument
Panel Right
X3 8
X138 23
J292
X500 11
X600 11
X510 1
X610 1
A9A
Outside
Rearview
Mirror -
Driver
E2LM
Side Marker
Lamp - Left
Middle
E3A
Roof Clearance Lamp -
Left Front Outer
E3C
Roof Clearance Lamp
- Front Middle
E3E
Roof Clearance Lamp -
Right Front Outer
A9B
Outside
Rearview
Mirror -
Passenger
E2RM
Side Marker
Lamp - Right
Middle
1
2
1150
BK
1050
BK
1250
BK
X510 5
X610 5
G311
G210
G312

4914498

## Exterior Lights Schematics (Tail Lamps - Incandescent (TR1))

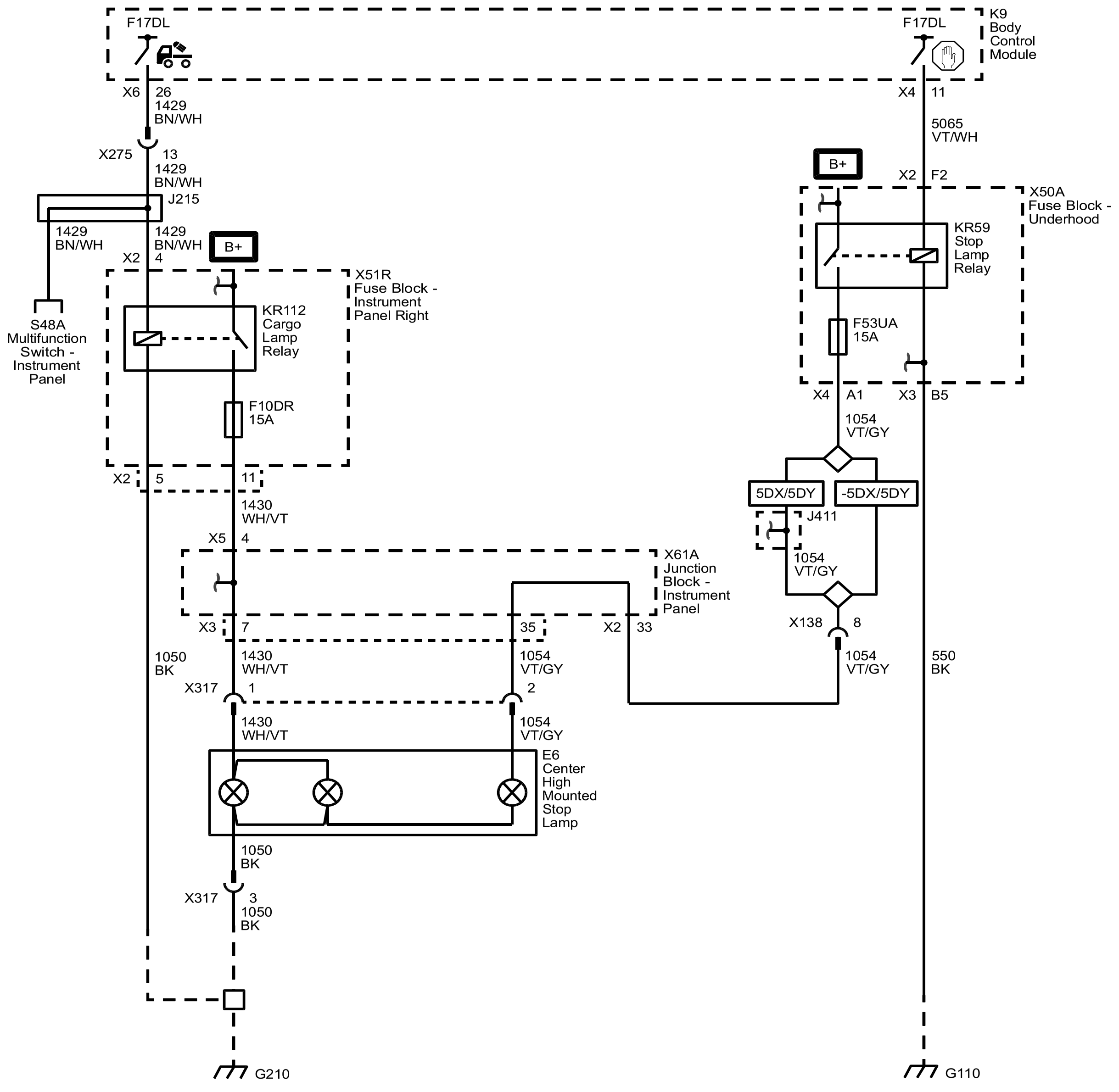

K9
Body
Control
Module
F7DL
X5 21
26
20
9960
YE/BU
38
BU/BN
9950
BN/GN
X1 C7
B+
X2 F3
X1 A6
X50A
Fuse Block -
Underhood
KR53
Park
Lamps
Relay
KR182L
Stop/Turn Signal
Lamp Relay -
Left
KR40
Backup
Lamp
Relay
KR182R
Stop/Turn Signal
Lamp Relay -
Right
KR53
Park
Lamps
Relay
F34UA
15A
F13UA
15A
F54UA
10A
F14UA
15A
F42UA
15A
X4 A2
X1 B5
X4 B1
X3 B5
X1 B6
X4 A4
18
YE/BU
19
BN/GN
X138 11
X138 12
709
VT/GY
18
YE/BU
24
GN/WH
550
BK
19
BN/GN
309
GY/BN
DPN
DF2
5DX/5DY
-5DX/
5DY
5DX/5DY
-5DX/
5DY
DPN
DF2
J423
J420
J400
J421
J422
709
VT/GY
18
YE/BU
24
GN/WH
24
GN/WH
19
BN/GN
309
GY/BN
X401 3
2
1
X402 14
2
23
709
VT/GY
18
YE/BU
24
GN/WH
24
GN/WH
19
BN/GN
309
GY/BN
D
B
A
A
C
B
E42L
Tail Lamp
Assembly -
Left
E5S
Tail/Stop
and Turn
Signal
Lamp - Left
E5A
Backup
Lamp -
Left
E5B
Backup
Lamp -
Right
E5T
Tail/Stop
and Turn
Signal
Lamp -
Right
E42R
Tail Lamp
Assembly -
Right
E
1750
BK
E
2150
BK
G401
G110
G402
LOC
DESC
4914504

# Exterior Lights Schematics (Tail Lamps - LED (UGE))


LOC
DESC
X50A Fuse Block - Underhood
KR53 Park Lamps Relay
F42UA 15A
X4 A4
309 GY/BN
DF2
DPN
J422
309 GY/BN
23
309 GY/BN
D
E42R Tail Lamp Assembly - Right
E5T Tail/Stop and Turn Signal Lamp - Right
E 2150 BK
G402
KR182R Stop/Turn Signal Lamp Relay - Right
F14UA 15A
X1 B6
19 BN/GN
X138
12
19 BN/GN
-5DX/5DY
5DX/5DY
J421
19 BN/GN
2
19 BN/GN
C
K9 Body Control Module
20
9950 BN/GN
X1 A6
J400
24 GN/WH
14
X402
24 GN/WH
A
E5B Backup Lamp - Right
X3 B5
550 BK
G110
F7DL
26
38 BU/BN
X2 F3
KR40 Backup Lamp Relay
F54UA 10A
X4 B1
24 GN/WH
24 GN/WH
1
24 GN/WH
A
E42L Tail Lamp Assembly - Left
E5A Backup Lamp - Left
KR182L Stop/Turn Signal Lamp Relay - Left
F13UA 15A
X1 B5
18 YE/BU
X138
11
18 YE/BU
-5DX/5DY
5DX/5DY
J420
18 YE/BU
2
18 YE/BU
B
E5S Tail/Stop and Turn Signal Lamp - Left
E 1750 BK
G401
B+
X5 21
9960 YE/BU
X1 C7
KR53 Park Lamps Relay
F34UA 15A
X4 A2
709 VT/GY
DF2
DPN
J423
709 VT/GY
3
X401
709 VT/GY
D

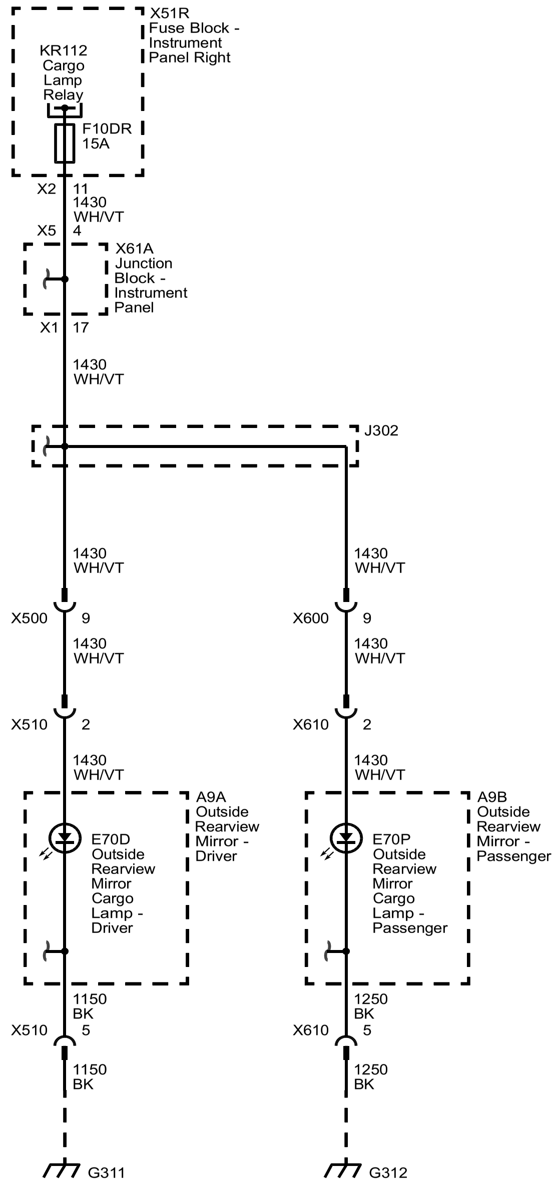
4914506

## Exterior Lights Schematics (Roof Cargo and Center High Mounted Stop Lamps)


F17DL
F17DL
K9
Body
Control
Module
X6 26
1429
BN/WH
X4 11
5065
VT/WH
X275 13
1429
BN/WH
J215
1429
BN/WH
1429
BN/WH
X2 4
B+
B+
X2 F2
X50A
Fuse Block -
Underhood
KR59
Stop
Lamp
Relay
F53UA
15A
X4 A1
X3 B5
X51R
Fuse Block -
Instrument
Panel Right
S48A
Multifunction
Switch -
Instrument
Panel
KR112
Cargo
Lamp
Relay
F10DR
15A
X2 5
11
1430
WH/VT
X5 4
1054
VT/GY
5DX/5DY
-5DX/5DY
J411
1054
VT/GY
X61A
Junction
Block -
Instrument
Panel
X3 7
35
X2 33
X138 8
1050
BK
1430
WH/VT
1054
VT/GY
1054
VT/GY
550
BK
X317 1
2
1430
WH/VT
1054
VT/GY
E6
Center
High
Mounted
Stop
Lamp
1050
BK
X317 3
1050
BK
G210
G110

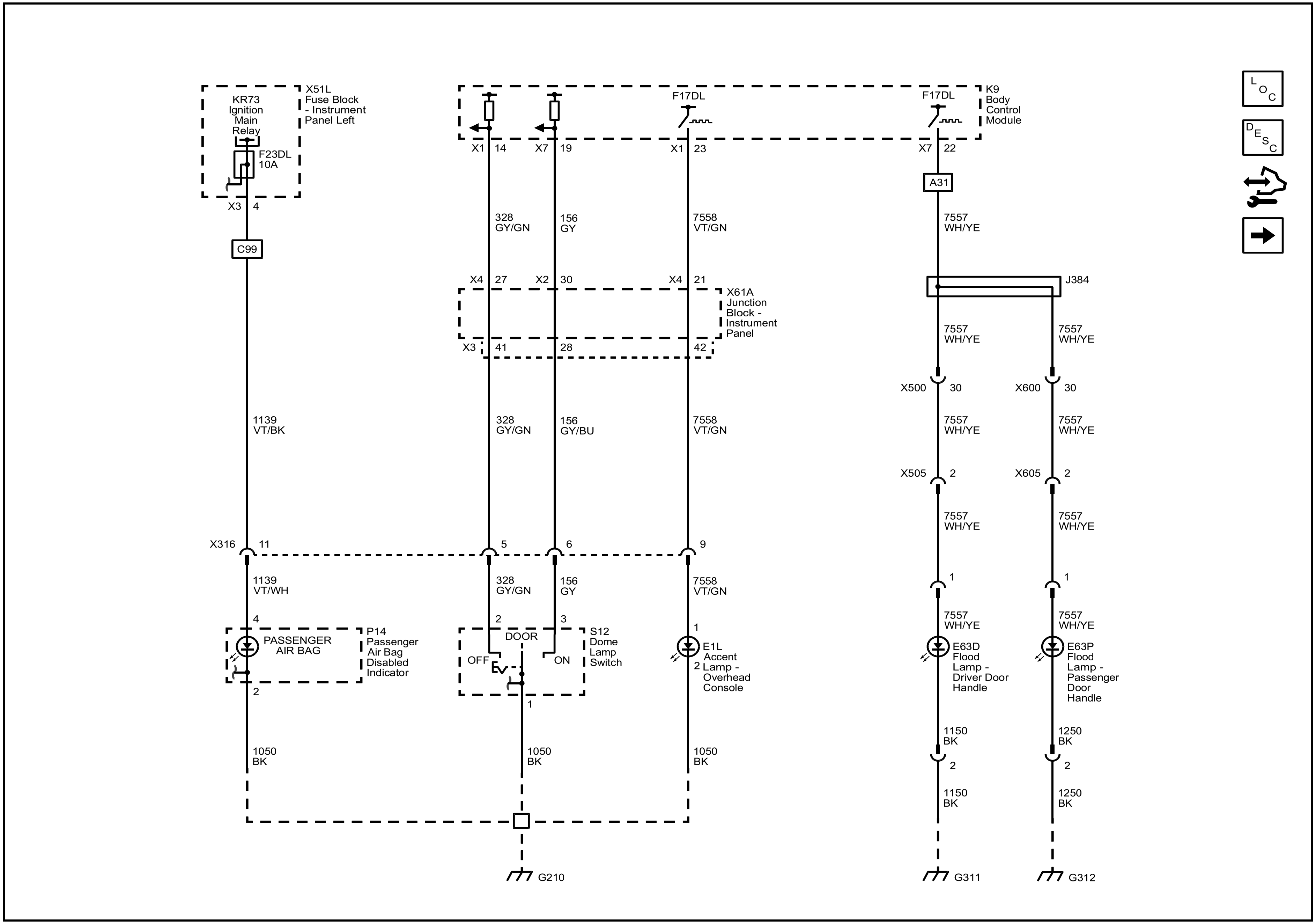
4914514

## Exterior Lights Schematics (Mirror Cargo Lamps (DPN))


X51R
Fuse Block -
Instrument
Panel Right
KR112
Cargo
Lamp
Relay
F10DR
15A
X2
11
1430
WH/VT
X5
4
X61A
Junction
Block -
Instrument
Panel
X1
17
1430
WH/VT
J302
1430
WH/VT
X500
9
1430
WH/VT
X510
2
1430
WH/VT
A9A
Outside
Rearview
Mirror -
Driver
E70D
Outside
Rearview
Mirror
Cargo
Lamp -
Driver
1150
BK
X510
5
1150
BK
G311
1430
WH/VT
X600
9
1430
WH/VT
X610
2
1430
WH/VT
A9B
Outside
Rearview
Mirror -
Passenger
E70P
Outside
Rearview
Mirror
Cargo
Lamp -
Passenger
1250
BK
X610
5
1250
BK
G312

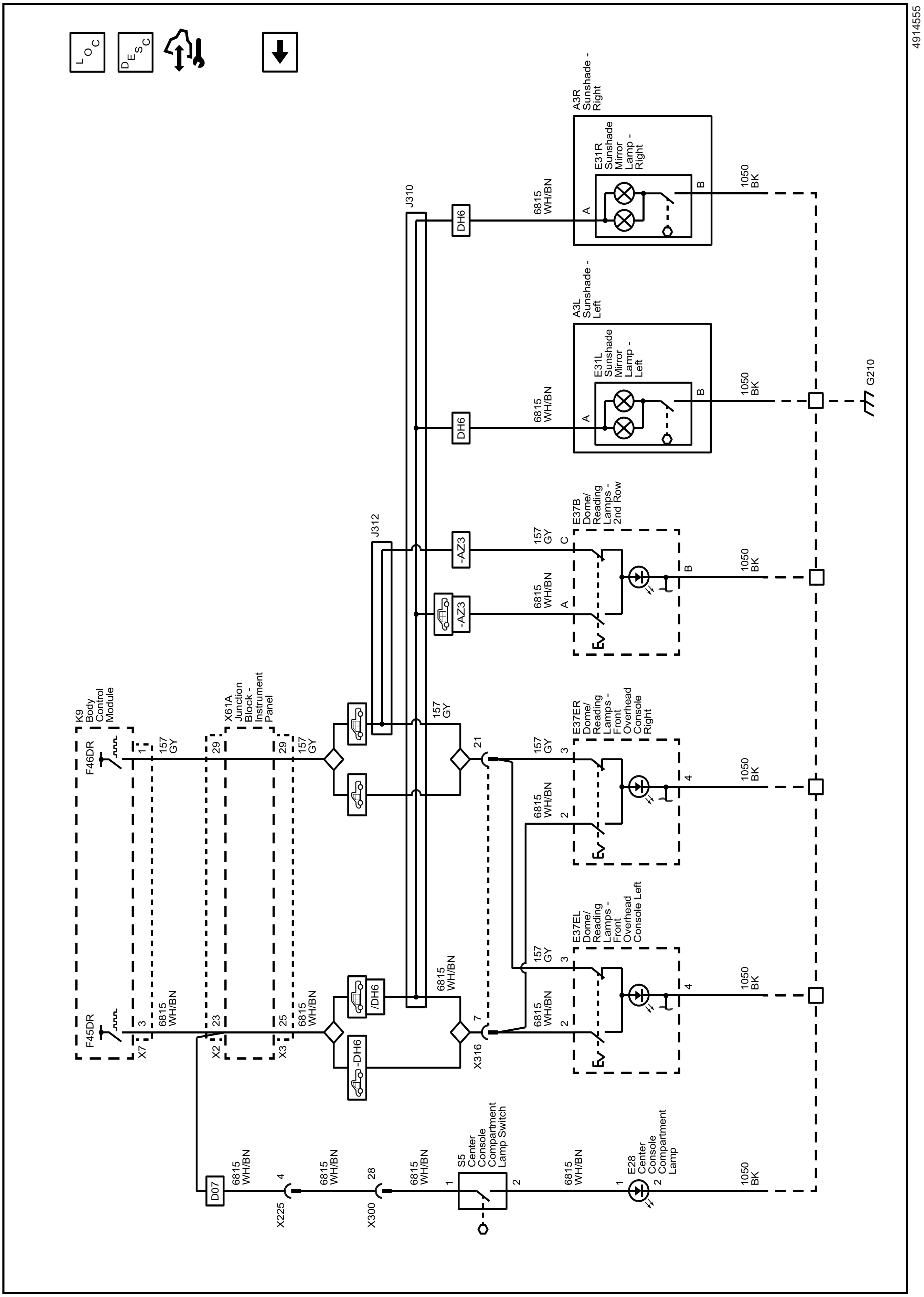
4914522

## Interior Lights Schematics (Controls and Flood Lamps)

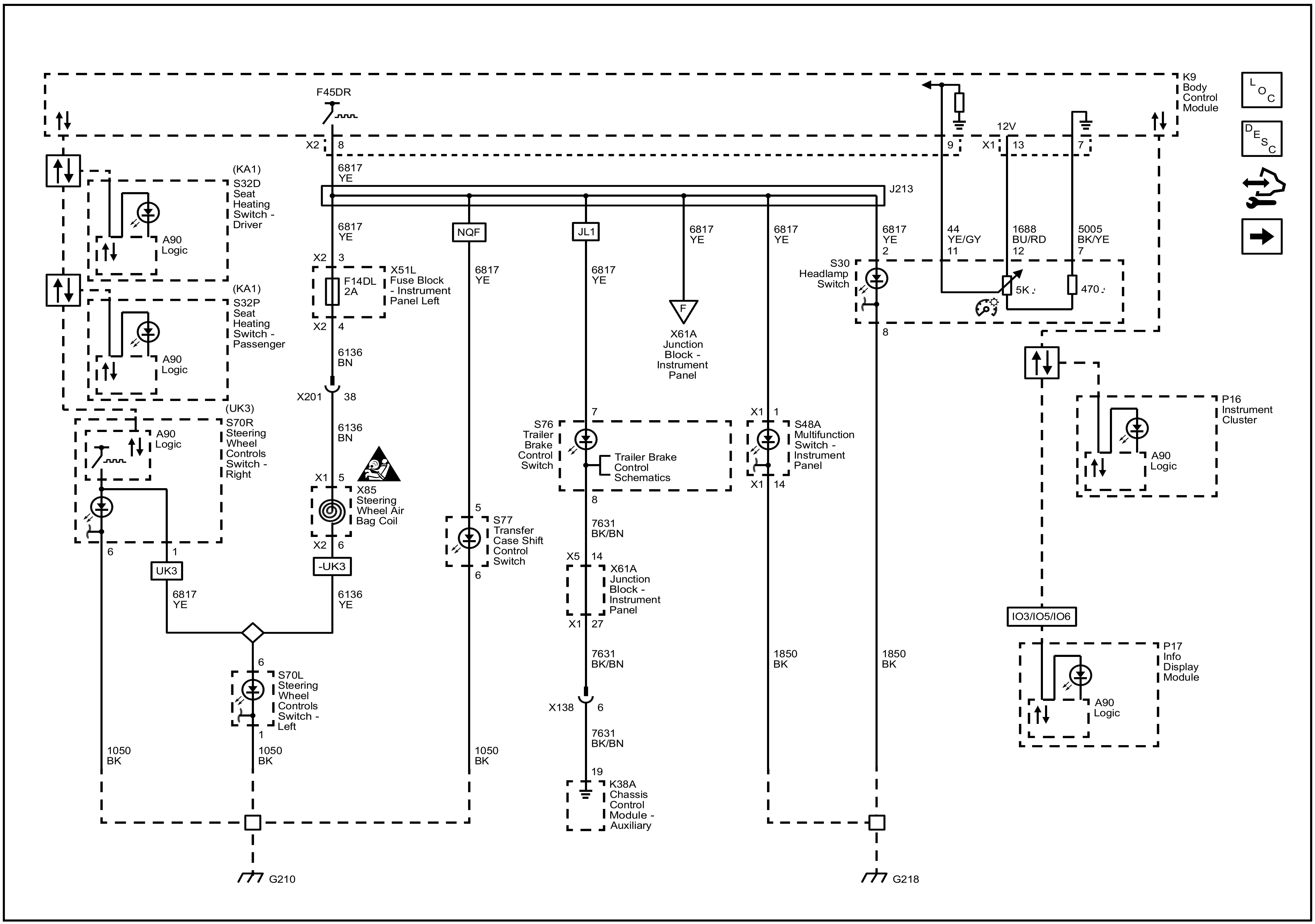

X51L Fuse Block - Instrument Panel Left
KR73 Ignition Main Relay
F23DL 10A
X3 4
C99
1139 VT/BK
X316 11
1139 VT/WH
4
PASSENGER AIR BAG
P14 Passenger Air Bag Disabled Indicator
2
1050 BK
X1 14
X7 19
F17DL
X1 23
F17DL
X7 22
K9 Body Control Module
328 GY/GN
156 GY
7558 VT/GN
X4 27
X2 30
X4 21
X61A Junction Block - Instrument Panel
X3 41
28
42
328 GY/GN
156 GY/BU
7558 VT/GN
5
6
9
328 GY/GN
156 GY
7558 VT/GN
2
3
DOOR
OFF
ON
S12 Dome Lamp Switch
1
1050 BK
1
E1L Accent Lamp - Overhead Console
2
1050 BK
G210
A31
7557 WH/YE
J384
7557 WH/YE
7557 WH/YE
X500 30
X600 30
7557 WH/YE
7557 WH/YE
X505 2
X605 2
7557 WH/YE
7557 WH/YE
1
1
7557 WH/YE
7557 WH/YE
E63D Flood Lamp - Driver Door Handle
E63P Flood Lamp - Passenger Door Handle
1150 BK
1250 BK
2
2
1150 BK
1250 BK
G311
G312
LOC
DESC

4914525

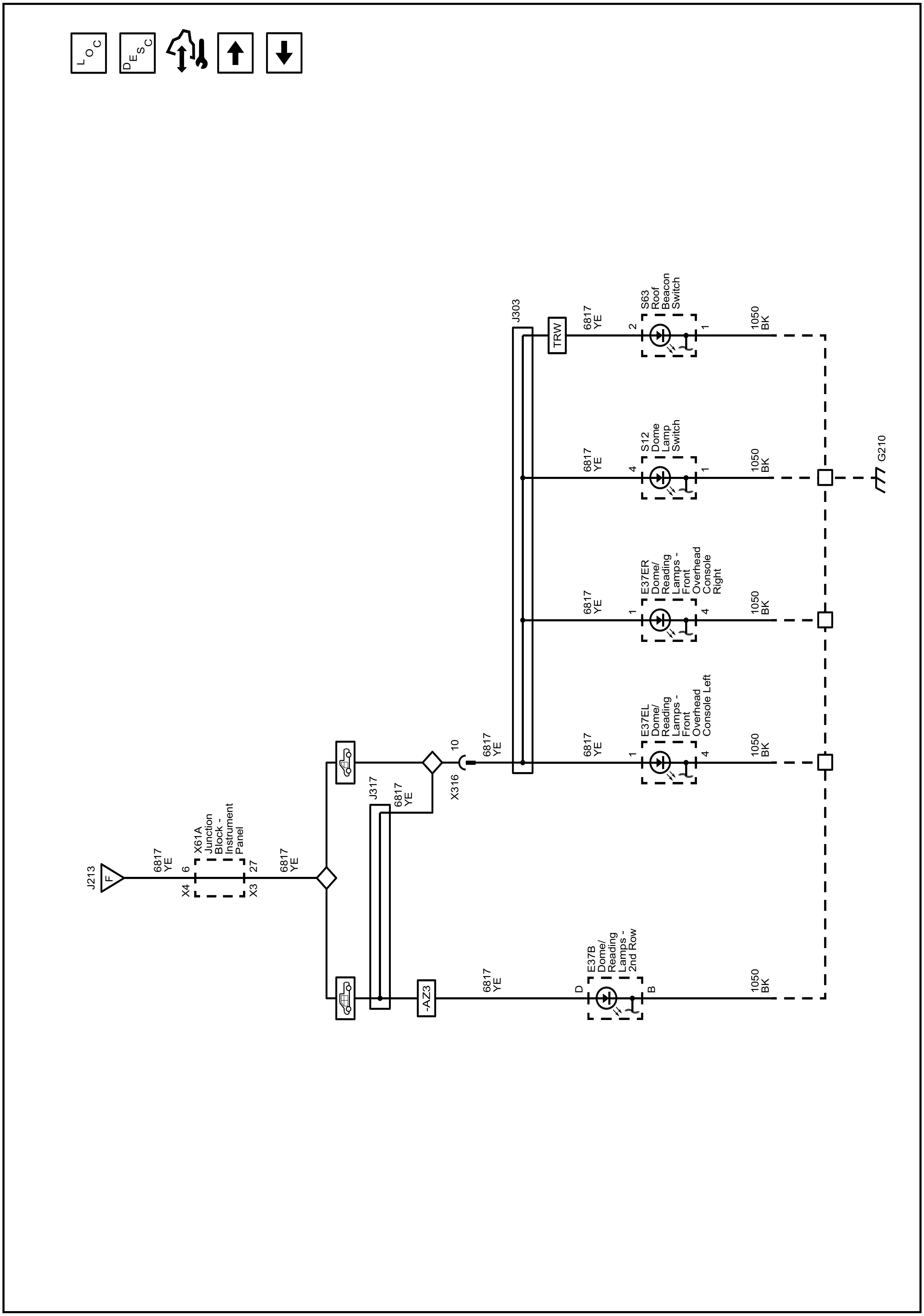
# Interior Lights Schematics (Floor Console Compartment and Overhead Lamps)


4914555
LOC
DESC
K9 Body Control Module
F46DR
F45DR
X7
1
3
157 GY
6815 WH/BN
X61A Junction Block - Instrument Panel
X2
29
23
X3
25
J312
J310
21
7
X316
DH6
/DH6
-DH6
-AZ3
D07
X225
4
X300
28
S5 Center Console Compartment Lamp Switch
1
2
E28 Center Console Compartment Lamp
1050 BK
E37EL Dome/ Reading Lamps - Front Overhead Console Left
E37ER Dome/ Reading Lamps - Front Overhead Console Right
E37B Dome/ Reading Lamps - 2nd Row
A
B
C
A3L Sunshade - Left
E31L Sunshade Mirror Lamp - Left
A3R Sunshade - Right
E31R Sunshade Mirror Lamp - Right
G210

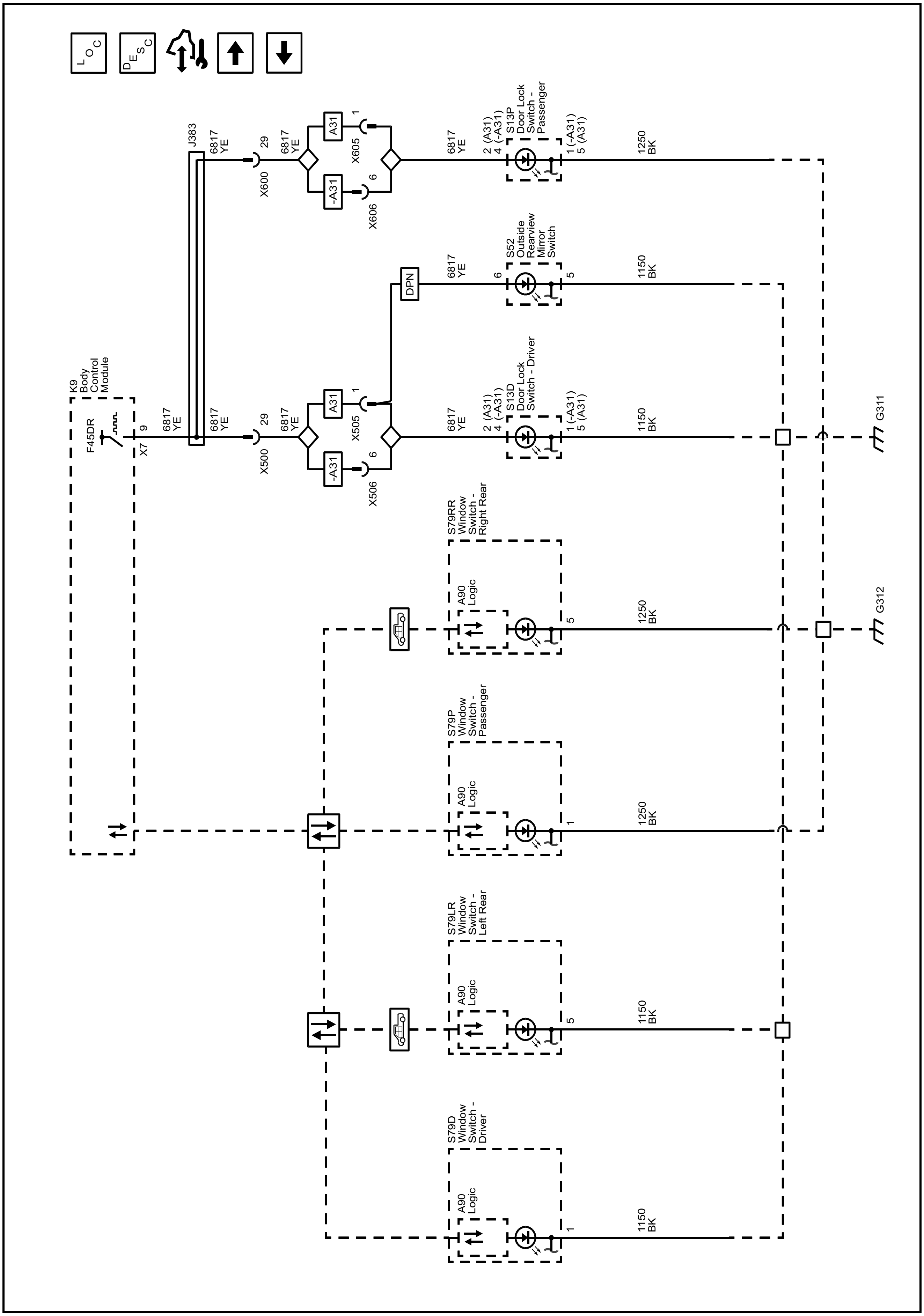
# Interior Lights Dimming Schematics (Controls and Backlight - Instrument Panel)


K9
Body
Control
Module
F45DR
X2 8
6817
YE
J213
9
X1 13
12V
7
44
YE/GY
11
1688
BU/RD
12
5005
BK/YE
7
S30
Headlamp
Switch
5K Ω
470 Ω
8
6817
YE
2
(KA1)
S32D
Seat
Heating
Switch -
Driver
A90
Logic
(KA1)
S32P
Seat
Heating
Switch -
Passenger
A90
Logic
(UK3)
S70R
Steering
Wheel
Controls
Switch -
Right
A90
Logic
6
1
UK3
6817
YE
X2 3
X51L
Fuse Block
- Instrument
Panel Left
F14DL
2A
X2 4
6136
BN
X201 38
6136
BN
X1 5
X85
Steering
Wheel Air
Bag Coil
X2 6
-UK3
6136
YE
6
S70L
Steering
Wheel
Controls
Switch -
Left
1
1050
BK
1050
BK
1050
BK
G210
NQF
6817
YE
5
S77
Transfer
Case Shift
Control
Switch
6
JL1
6817
YE
7
S76
Trailer
Brake
Control
Switch
Trailer Brake
Control
Schematics
8
7631
BK/BN
X5 14
X61A
Junction
Block -
Instrument
Panel
X1 27
7631
BK/BN
X138 6
7631
BK/BN
19
K38A
Chassis
Control
Module -
Auxiliary
6817
YE
F
X61A
Junction
Block -
Instrument
Panel
6817
YE
X1 1
S48A
Multifunction
Switch -
Instrument
Panel
X1 14
1850
BK
1850
BK
G218
P16
Instrument
Cluster
A90
Logic
IO3/IO5/IO6
P17
Info
Display
Module
A90
Logic
LOC
DESC
4914559

# Interior Lights Dimming Schematics (Backlight - Overhead Lamps)

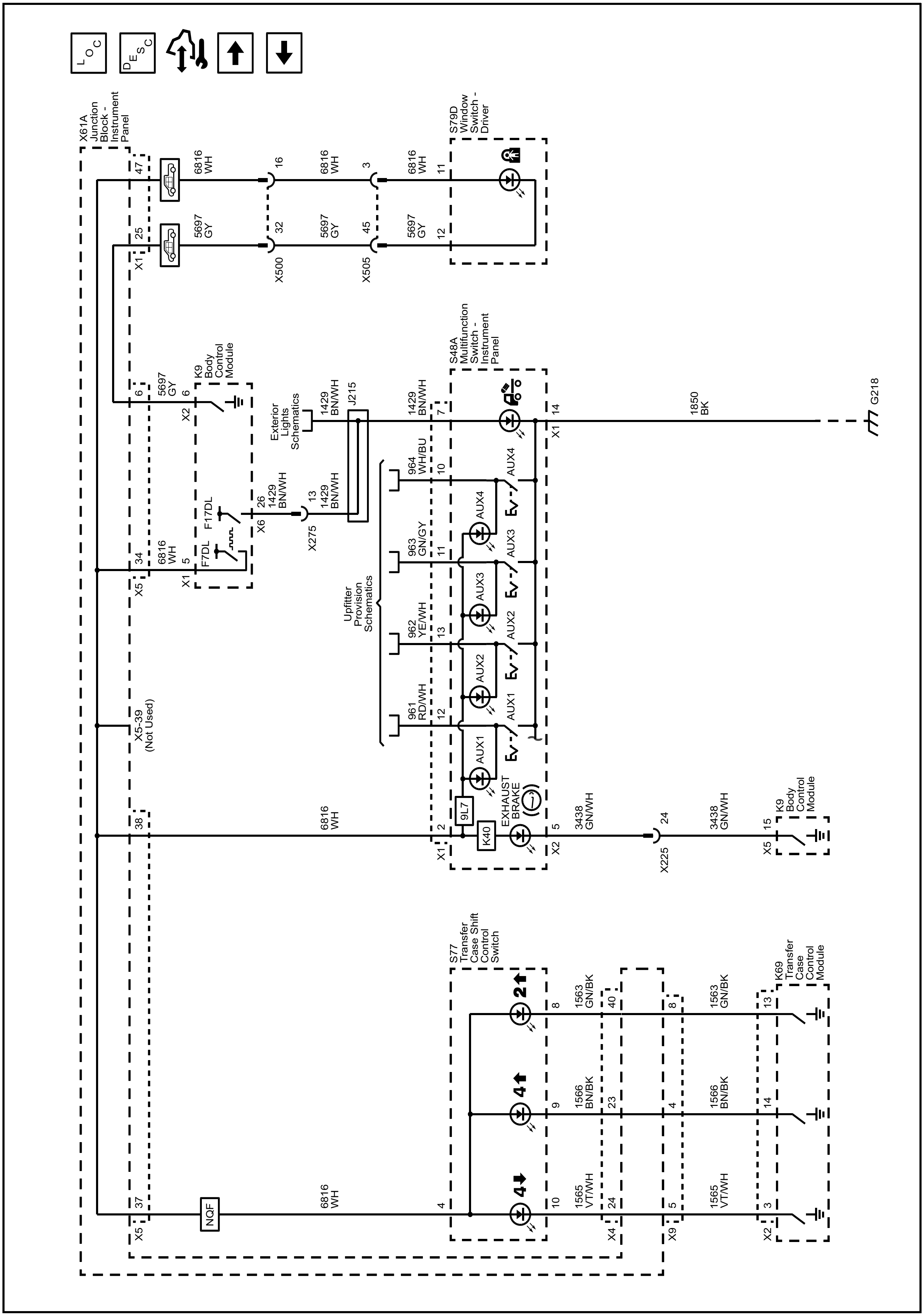

4914561
LOC
DESC
J213
F
6817 YE
X4 6
X61A Junction Block - Instrument Panel
X3 27
6817 YE
J317
6817 YE
-AZ3
6817 YE
10
X316
6817 YE
J303
TRW
6817 YE
D
E37B Dome/ Reading Lamps - 2nd Row
B
1050 BK
1
E37EL Dome/ Reading Lamps - Front Overhead Console Left
4
1050 BK
1
E37ER Dome/ Reading Lamps - Front Overhead Console Right
4
1050 BK
4
S12 Dome Lamp Switch
1
1050 BK
2
S63 Roof Beacon Switch
1
1050 BK
G210

## Interior Lights Dimming Schematics (Backlight - Doors)



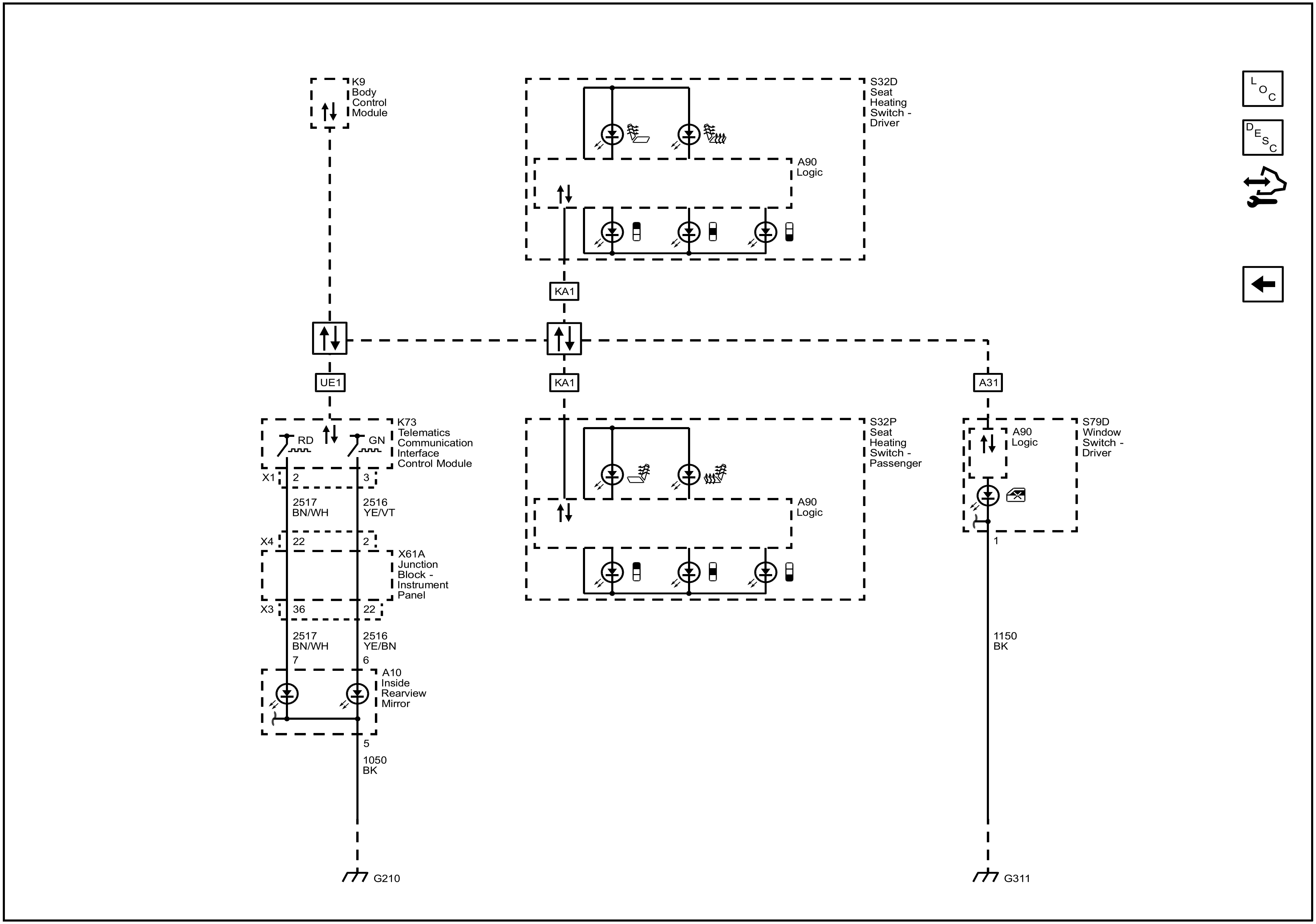
LOC
DESC
K9 Body Control Module
F45DR
X7 9
6817 YE
J383
X500 29
X600 29
A31
-A31
X505 1
X506 6
X605 1
X606 6
DPN
2 (A31) 4 (-A31)
S13D Door Lock Switch - Driver
1 (-A31) 5 (A31)
6
S52 Outside Rearview Mirror Switch
5
S13P Door Lock Switch - Passenger
1150 BK
1250 BK
G311
G312
S79RR Window Switch - Right Rear
S79P Window Switch - Passenger
S79LR Window Switch - Left Rear
S79D Window Switch - Driver
A90 Logic
1
4914563

# Interior Lights Dimming Schematics (Indicators - Discrete)


LOC
DESC
X61A Junction Block - Instrument Panel
47
25
X1
6816 WH
5697 GY
16
32
X500
3
45
X505
11
12
S79D Window Switch - Driver
6
5697 GY
6
X2
K9 Body Control Module
Exterior Lights Schematics
1429 BN/WH
J215
7
14
X1
S48A Multifunction Switch - Instrument Panel
1850 BK
G218
964 WH/BU
10
AUX4
26
1429 BN/WH
X6
F17DL
13
1429 BN/WH
X275
34
6816 WH
5
X1
F7DL
X5
963 GN/GY
11
AUX3
962 YE/WH
13
AUX2
Upfitter Provision Schematics
961 RD/WH
12
AUX1
X5-39 (Not Used)
9L7
K40
EXHAUST BRAKE
38
6816 WH
2
X1
5
X2
3438 GN/WH
24
X225
3438 GN/WH
15
X5
K9 Body Control Module
S77 Transfer Case Shift Control Switch
2↑
4↑
4↓
8
1563 GN/BK
40
8
1563 GN/BK
13
K69 Transfer Case Control Module
9
1566 BN/BK
23
4
1566 BN/BK
14
37
NQF
6816 WH
4
10
1565 VT/WH
24
5
1565 VT/WH
3
X5
X4
X9
X2

4914565

## Interior Lights Dimming Schematics (Indicators - Serial Data)


L O C
D E S C
K9 Body Control Module
S32D Seat Heating Switch - Driver
A90 Logic
KA1
KA1
UE1
A31
K73 Telematics Communication Interface Control Module
RD
GN
X1
2
3
2517 BN/WH
2516 YE/VT
X4
22
2
X61A Junction Block - Instrument Panel
X3
36
22
2517 BN/WH
7
2516 YE/BN
6
A10 Inside Rearview Mirror
5
1050 BK
G210
S32P Seat Heating Switch - Passenger
A90 Logic
A90 Logic
S79D Window Switch - Driver
1
1150 BK
G311
4914567

# Description and Operation

## Exterior Lighting Systems Description and Operation

The exterior lighting system consist of the following lamps:

- Backup lamps
- Front fog lamps
- Hazard warning lamps
- Headlamps
- Park, tail, license, and marker lamps
- Stop lamps
- Turn signal lamps
- Trailer lighting

### Low Beam Headlamps

The headlamps may be turned ON in 3 different ways:

- When the headlamp switch is placed in the ON position, for normal operation
- When the headlamp switch is placed in the AUTO position, for automatic lamp control
- When the headlamp switch is placed in the AUTO position, with the windshield wipers ON in daylight conditions, after a 6 second delay

The BCM will also command the low beam headlamps ON during daylight conditions when the following conditions are met:

- Headlamp switch in the AUTO position
- Windshield wipers ON
- Vehicle in any gear but PARK

When the BCM commands the low beam headlamps ON, the vehicle operator will notice the interior backlighting for the instrument cluster and the various switches with backlighting control will dim to the level of brightness selected by the instrument panel dimmer switch.

The body control module (BCM) monitors three signal circuits from the headlamp switch. When the headlamp switch is in the AUTO position, all three signal circuits are open. When placed in the AUTO position, the BCM monitors inputs from the ambient light sensor to determine if headlamps are required or if daytime running lamps will be activated based on outside lighting conditions. When the headlamp switch is placed in the OFF position, the headlamp switch headlamps OFF signal circuit is grounded, indicating to the BCM that the exterior lamps should be turned OFF. With the headlamp switch in the PARK position, the headlamp switch park lamps ON signal circuit is grounded, indicating that the park lamps have been requested. When the headlamp switch is placed in the HEADLAMP position, both the headlamp switch park lamps ON signal circuit and the headlamp switch headlamps ON signal circuit are grounded. The BCM responds to the inputs by illuminating the park lamps and headlamps. When the low beam headlamps are requested, the BCM applies B+ to both low beam headlamp control circuits illuminating the low beam headlamps.

### High Beam Headlamps

When the low beam headlamps are ON and the turn signal/multifunction switch is placed in the high beam position, ground is applied to the BCM through the high beam signal circuit. The BCM responds to the high beam request by applying ground to the high beam relay control circuit which energizes the high beam relay. With the high beam relay energized, the switch contacts close allowing battery voltage to flow through the 3 pin high beam fuse to the high beam control circuits illuminating the left and right high beam headlamps.

### Flash to Pass

When the turn signal/multifunction switch is momentarily placed in the flash to pass position, ground is applied to the turn signal/multifunction switch. The turn signal/multifunction switch applies ground to the body control module (BCM) through the flash to pass switch signal circuit. The BCM responds to the flash to pass request by applying ground to the high beam relay control circuit. This energizes the high beam relay, closing the switch side contacts of the high beam relay, applying battery voltage to the 3 pin high beam fuse. Battery voltage is applied from the high beam fuse through the high beam control circuit to the high beam headlamp assemblies. This causes the high beam headlamps to illuminate at full brightness momentarily.

### Front Fog Lamps

The front fog lamp relay is supplied with battery voltage at all times. The front fog lamp switch signal circuit is grounded momentarily by pressing the front fog lamp switch. The body control module (BCM) energizes the front fog lamp relay by applying ground to the front fog lamp relay control circuit. When the front fog lamp relay is energized, the relay switch contacts close and battery voltage is applied through the front fog lamp fuse to the front fog lamp supply voltage circuit which illuminates the front fog lamps.

### Hazard Lamps

The hazard flashers may be activated in any power mode. The hazard switch signal circuit is momentarily grounded when the hazard switch is pressed. The body control module (BCM) responds to the hazard switch signal input by supplying battery voltage to all four turn signal lamps in an ON and OFF duty cycle. When the hazard switch is activated, the BCM sends a serial data message to the instrument panel cluster requesting both turn signal indicators to be cycled ON and OFF.

The instrument panel dimmer switch controls the brightness of the interior backlighting components. When the instrument panel dimmer switch is placed in a desired brightness position, the body control module (BCM) receives a signal from the instrument panel dimmer switch and responds by applying a pulse width modulated voltage to the hazard switch light emitting diode (LED) backlighting control circuit illuminating the LED to the desired level of brightness.

## Park, Tail, and License Lamps

When the headlamp switch is placed in the HEAD or PARK position, ground is applied to the park lamp switch ON signal circuit to the body control module (BCM). The BCM responds by applying voltage to the park lamps, tail lamps, and license lamps control circuits illuminating the park, tail, and license lamps.

## Stop Lamps

The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The body control module (BCM) provides a low reference signal and a 5 V reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM will apply battery voltage to the left and right stop lamp control circuits as well as the center high mounted stop lamp control circuit illuminating the left and right stop lamps and the center high mounted stop lamp.

## Turn Signal Lamps

Ground is applied at all times to the turn signal/ multifunction switch. The turn signal lamps may only be activated with the ignition switch in the ON or START positions. When the turn signal/multifunction switch is placed in either the TURN RIGHT or TURN LEFT position, ground is applied to the body control module (BCM) through either the right turn or left turn signal switch signal circuit. The BCM responds to the turn signal switch input by applying a pulsating voltage to the front and rear turn signal lamps through there respective control circuits. When a turn signal request is received by the BCM, a serial data message is sent to the instrument cluster requesting the respective turn signal indicator be pulsed ON and OFF.

## Backup Lamps

### Automatic Transmission

With the engine ON and the transmission in the REVERSE position, the transmission control module (TCM) sends a serial data message to the body control module (BCM). The message indicates that the gear selector is in the REVERSE position. The BCM applies battery voltage to the backup lamps control circuit illuminating the backup lamps. Once the driver moves the gear selector out of the REVERSE position, a message is sent by the TCM via serial data requesting the BCM to remove battery voltage from the backup lamps control circuit. The engine must be ON for the backup lamps to operate.

## Trailer Lighting

### Backup Lamps

For backup lamp operation, the backup lamp relay is supplied with battery voltage at all times. With the engine running and the transmission in the reverse position, the transmission control module (TCM) sends a serial data message to the body control module (BCM). The message indicates that the gear selector is in the reverse position. The BCM energizes the backup lamp relay by applying battery voltage to the backup lamp relay control circuit. When the backup lamp relay is energized, the relay switch contacts close and battery voltage is applied through the backup lamp fuses to the backup lamp control circuits which illuminates the backup lamps. Once the driver moves the gear selector out of the reverse position, a message is sent by the TCM via serial data requesting the BCM to remove battery voltage from the backup lamp relay control circuit.

### Park Lamps

When the headlamp switch is placed in the HEAD or PARK position, ground is applied to the park lamp switch ON signal circuit to the body control module (BCM). The BCM responds by applying voltage to the park lamps, tail lamps, license lamps, and trailer park lamps control circuits illuminating the park, tail, license, and trailer park lamps.

### Stop Lamps

For stop lamp operation, the left and right trailer stop/ turn signal lamp relay’s are supplied with battery voltage at all times. The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The body control module (BCM) provides a low reference signal and a 5 V reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM energizes the left and right trailer stop/turn signal lamp relay’s by applying voltage to the left and right stop lamp relay control circuits. With the left and right trailer stop/turn signal lamp relay’s energized, the relay switch contacts close and battery voltage is applied through the left and right trailer stop/turn signal fuse’s to the trailer stop lamp control circuits which illuminates the trailer stop lamps.

### Turn Signal Lamps

For turn signal lamp operation, the left and right trailer stop/turn signal lamp relay’s are supplied with battery voltage at all times. Ground is applied at all times to the turn signal/multifunction switch. The turn signal lamps may only be activated with the ignition switch in the ON or START positions. When the turn signal/multifunction switch is placed in either the TURN RIGHT or TURN LEFT position, ground is applied to the body control module (BCM) through either the right turn or left turn signal switch signal circuit. The BCM responds to the turn signal switch input by applying a pulsating voltage to the left and right trailer stop/turn signal lamp relay control circuits energizing the relay’s in an ON and OFF cycle. With the left and right trailer stop/turn signal lamp relay’s energized, the relay switch contacts cycle ON and OFF applying battery voltage through the left and right trailer stop/turn signal fuse’s to the trailer turn signal lamp control circuits which illuminates the trailer turn signal lamps in an ON and OFF cycle.

## Battery Run Down Protection/ Inadvertent Power

To provide battery run down protection, the exterior lamps will be deactivated automatically under certain conditions. The BCM monitors the state of the headlamp switch. If the park or headlamp switch is ON when the ignition switch is placed in either the CRANK or RUN position and then placed in the OFF position, the BCM initiates a 10 minute timer. At the end of the 10 minutes, the BCM will turn off the control power output to the park lamp controls as well as the headlamp relay coils, deactivating the exterior lamps. This feature will be cancelled if any power mode other than OFF becomes active. The BCM will disable battery run down protection if any of the following conditions exist. The park or headlamp switch is placed in the ON to OFF position, and back to the ON position during battery run down protection. The BCM determined that the park or headlamp switch was not active when the ignition was turned OFF.

# Interior Lighting Systems Description and Operation

## Interior Lamps

The interior lighting system consist of two groups. This first group includes lamps that may not be dimmed.

- Dome lamps
- Center console compartment lamps
- Reading lamps
- Sunshade mirror lamps

## Dome Lamps

The dome lamp switch has 3 positions: DOOR, OFF, and ON. The ON position provides a ground for continuous operation and the dome lamp will remain illuminated until the switch is placed in either the DOOR or OFF position. When in the DOOR position, the dome lamp operation is controlled by the body control module (BCM). When any door is opened, the door ajar switch contacts close and the BCM receives a door-open input. The BCM illuminates the dome lamp when any door is opened or a door lock/unlock request is activated with the key fob. After all doors have been closed, the dome lamp will remain illuminated approximately 3 seconds after the last door closes. When the driver places the dome lamp switch in the OFF position, the dome lamp will be disabled. In the event that the dome lamp were to remain illuminated for more than 10 minutes with the ignition switch in the OFF position and no doors opened, the BCM will deactivate the dome lamp control circuit to prevent total battery discharge. The dome lamps will turn OFF using the theater dimming feature when controlled by the BCM.

## Center Console Compartment Lamp

The inadvertent power supply voltage circuit from the BCM provides battery voltage to the center console compartment lamp. When the center console is opened, the center console compartment lamp switch contacts close providing a path to ground and the center console compartment lamp illuminates. If the operator inadvertently leaves the center console compartment door open with the center console compartment lamp ON, the BCM will turn all interior lamps OFF after 10 minutes has passed since any switch activation has been detected by the BCM.

## Reading Lamps

The inadvertent power supply voltage circuit from the BCM provides battery positive voltage to each reading lamp. When a reading lamp switch is activated, the switch contacts close providing a path to ground and the reading lamp illuminates. If the operator inadvertently leaves a reading lamp ON, the BCM will turn all interior lamps OFF after 10 minutes has passed since any switch activation has been detected by the BCM.

## Sunshade Mirror Lamps

The inadvertent power supply voltage circuit from the BCM provides battery voltage to each set of sunshade mirror lamps. When the sunshade mirror cover is opened, a switch closes providing ground and the sunshade lamps illuminate. If the operator inadvertently leaves a sunshade mirror cover open with the lamps ON, the BCM will turn all interior lamps OFF after 10 minutes has passed since any switch activation has been detected by the BCM.

## Keyless Entry Interior Illumination

When the operator uses the keyless entry transmitter in order to unlock the doors, the BCM receives a door-unlock signal. The BCM must receive inputs from various systems that indicate that the ignition switch is OFF, the courtesy lamp switch is OFF, and all doors are closed before the BCM will activate the interior lamps. After all doors have been closed, the courtesy lamps will turn OFF immediately if the ignition switch is turned to the ON position, the door locks are LOCKED, or approximately 20 seconds after the last door closes. The BCM will turn off the courtesy lamps through the theater dimming feature. The BCM keeps the courtesy lamps on for 40 seconds after an alarm event is completed.

## Interior Lamps Dimming

The second group includes lamps which may be dimmed. This group may use a combination of light emitting diodes (LED), incandescent lamps, and pulse width modulation (PWM) illumination.

- Dome/reading lamps – front
- Dome/reading lamps – rear
- Door lock switch – driver
- Door lock switch – passenger
- Headlamp switch
- HVAC control head assembly
- Multifunction switch – instrument panel
- Outside rearview mirror switch
- Park brake switch
- Radio
- Roof beacon switch
- Seat memory switch – driver
- Steering wheel control switch – left
- Steering wheel control switch – right

- Sun roof switch
- Sun roof tilt switch
- Transfer case shift control switch
- Trailer brake control switch
- Window switch – driver
- Window switch – passenger

With the headlamp switch in the PARK or HEAD position, the park lamp switch signal circuit provides an input to the body control module (BCM). The BCM responds by applying voltage to the park lamps as well as the backlight dimming control circuits illuminating all components with interior backlighting. All interior backlighting turns ON at the dimming level indicated by the instrument panel dimmer switch. The instrument panel dimmer switch is a momentary type switch and utilizes a resistor ladder to increase and decrease the brightness of the interior backlighting components. The instrument panel dimmer switch provides a voltage signal to the BCM that will increase as the brightness of the lights are increased and decrease as the brightness of the lights are decreased. The BCM provides a low reference signal and a B+ circuit to the instrument panel dimmer switch. When the instrument panel dimmer switch is held in the desired position, the dimmed voltage setting is applied from the instrument panel dimmer switch through the instrument panel dimmer switch signal circuit to the BCM. The BCM interprets the signal and applies a pulse width modulated voltage through the backlighting control circuits illuminating the interior backlighting to the requested level of brightness.

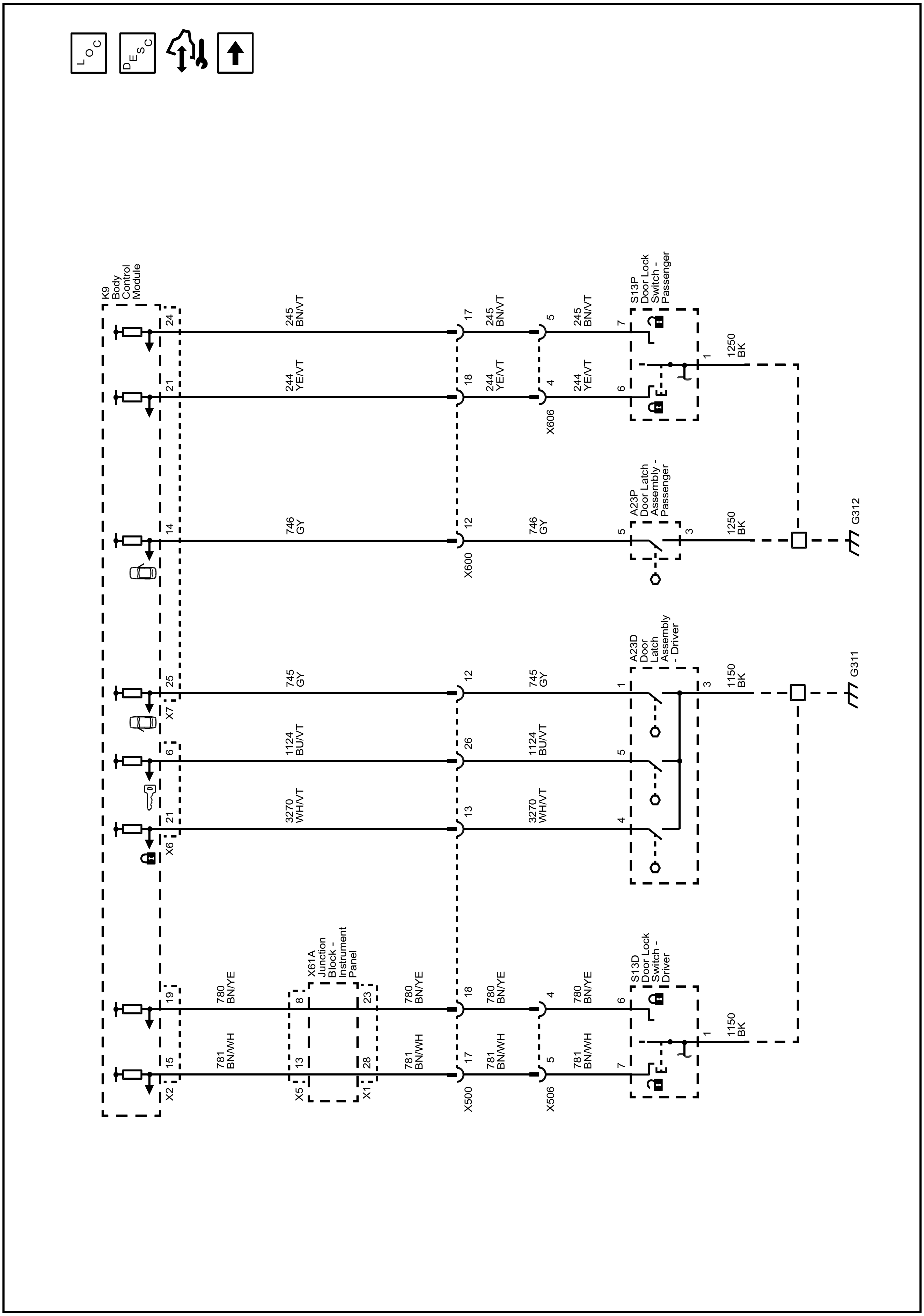
## Battery Rundown Protection/ Inadvertent Power

The BCM inadvertent power supply voltage circuit provides battery voltage to all of the interior courtesy lamps. In the event that any of these lamps were to remain illuminated for a period of more than 10 minutes with the ignition switch in the OFF position, the BCM will deactivate the inadvertent power supply voltage circuit to prevent total battery discharge. If the ignition switch is turned to any position other than OFF, or if a lamp switch is activated during this 10 minute period, the timer resets for another 10 minutes.

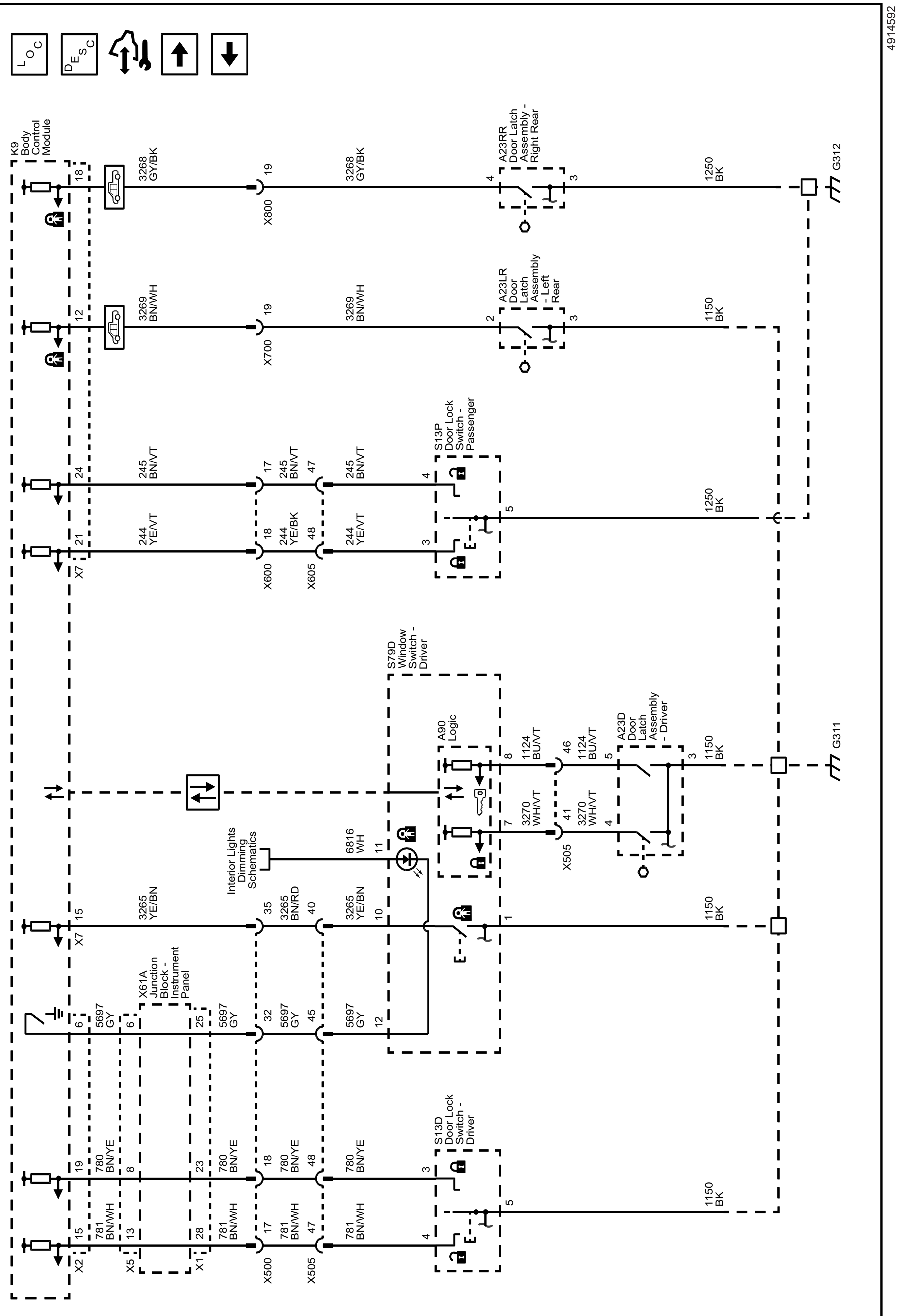
# Vehicle Access

## Schematic and Routing Diagrams

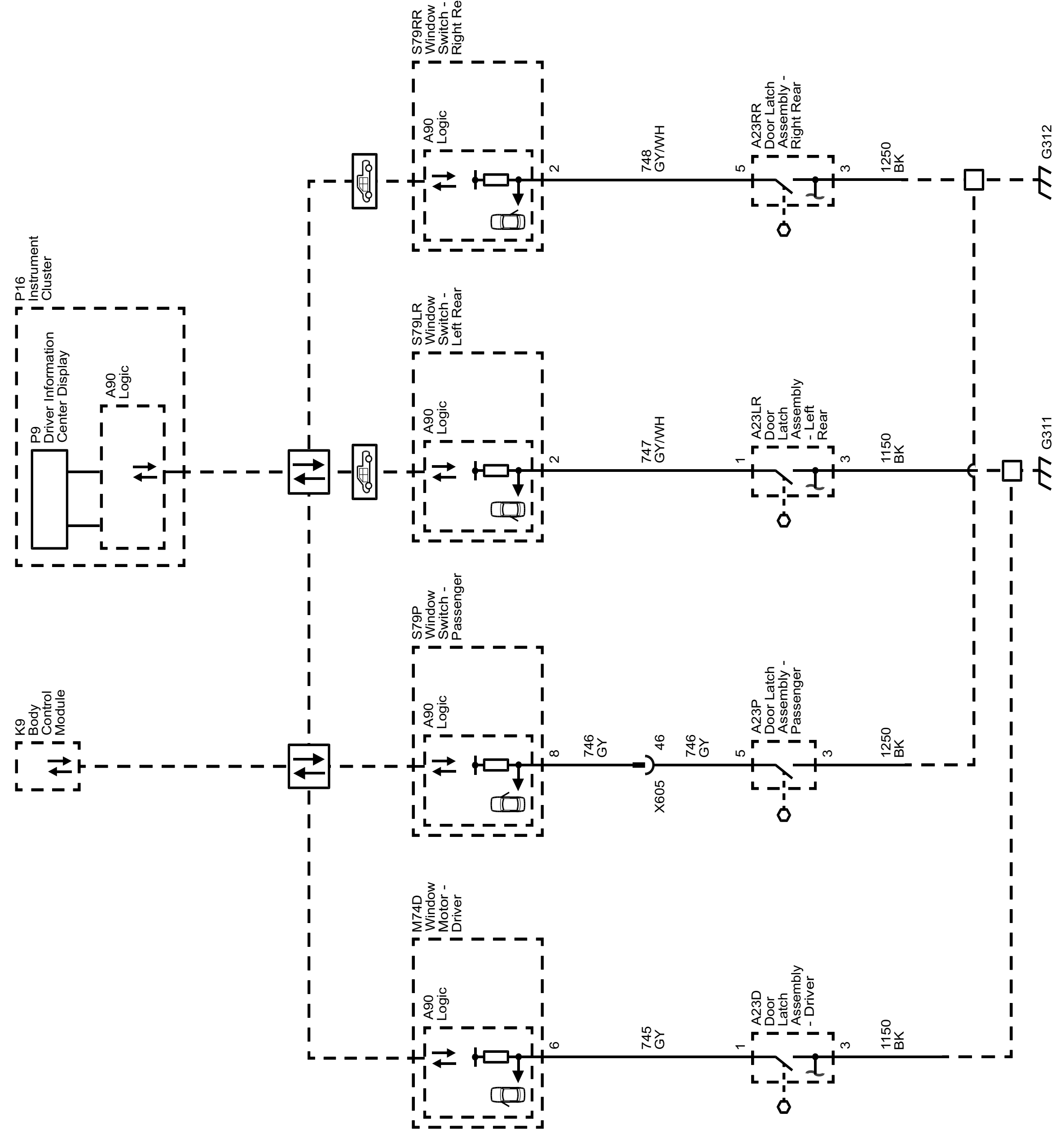
# Door Lock/Indicator Schematics (Switches and Indicators (-A31))


4914586
LOC
DESC
K9 Body Control Module
24
21
14
25
6
21
19
15
X7
X6
X2
245 BN/VT
244 YE/VT
746 GY
745 GY
1124 BU/VT
3270 WH/VT
780 BN/YE
781 BN/WH
X61A Junction Block - Instrument Panel
8
13
23
28
X5
X1
780 BN/YE
781 BN/WH
17
18
12
12
26
13
18
17
X600
X500
245 BN/VT
244 YE/VT
746 GY
745 GY
1124 BU/VT
3270 WH/VT
780 BN/YE
781 BN/WH
5
4
X606
4
5
X506
245 BN/VT
244 YE/VT
780 BN/YE
781 BN/WH
S13P Door Lock Switch - Passenger
7
6
1
1250 BK
A23P Door Latch Assembly - Passenger
5
3
1250 BK
G312
A23D Door Latch Assembly - Driver
1
5
4
3
1150 BK
G311
S13D Door Lock Switch - Driver
6
7
1
1150 BK

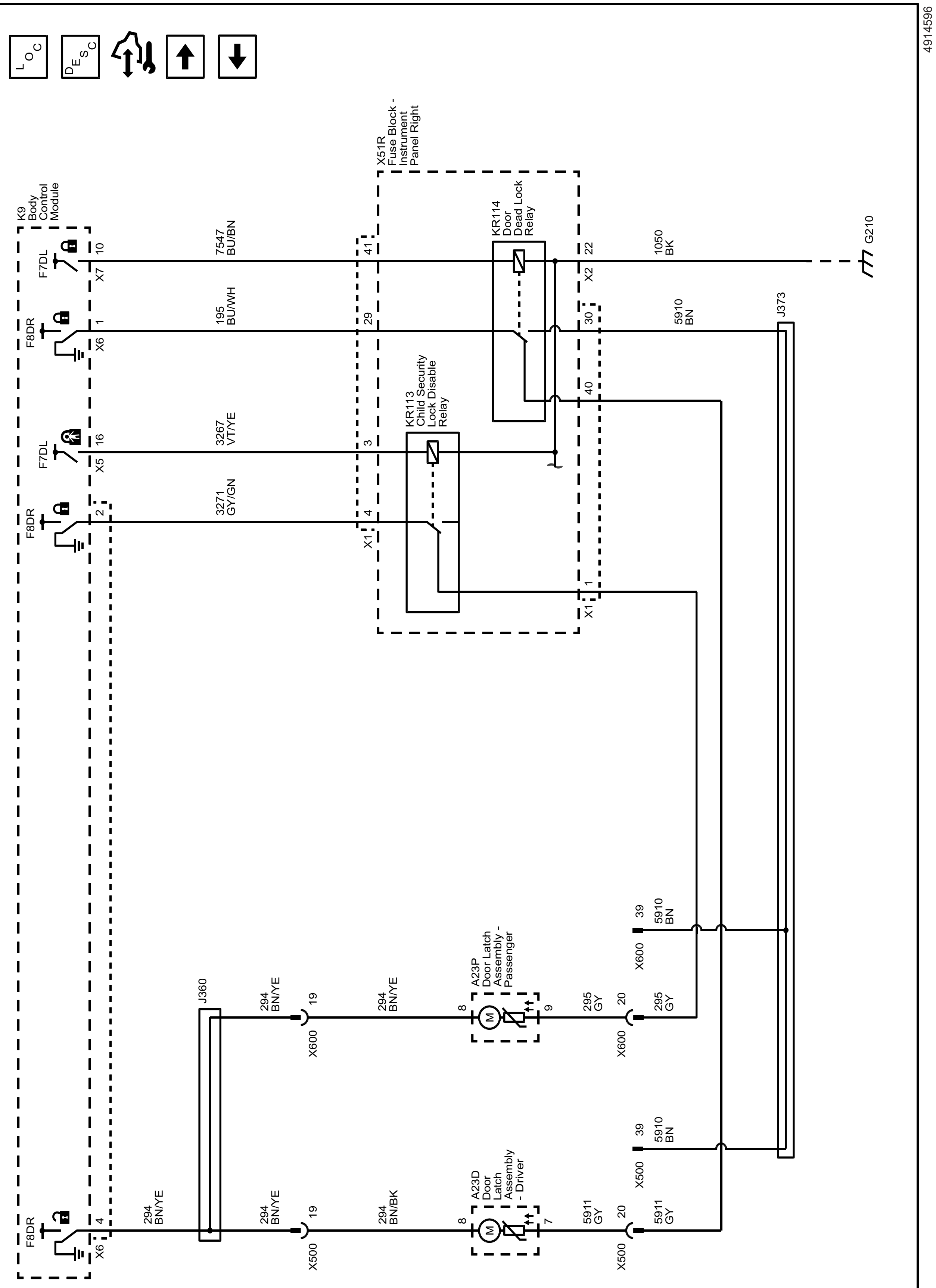
# Door Lock/Indicator Schematics (Switches and Child Lock Status (A31))


4914592
LOC
DESC
K9 Body Control Module
18
12
24
21
X7
15
X7
6
19
15
X2
3268 GY/BK
3269 BN/WH
245 BN/VT
244 YE/VT
3265 YE/BN
5697 GY
780 BN/YE
781 BN/WH
X61A Junction Block - Instrument Panel
6
8
13
X5
25
23
28
X1
X800
19
X700
17
18
X600
35
32
X500
245 BN/VT
244 YE/BK
3265 BN/RD
47
48
X605
40
45
X505
Interior Lights Dimming Schematics
6816 WH
11
10
12
S79D Window Switch - Driver
A90 Logic
8
7
1124 BU/VT
3270 WH/VT
46
41
X505
A23D Door Latch Assembly - Driver
5
4
3
1
S13P Door Lock Switch - Passenger
4
3
5
S13D Door Lock Switch - Driver
A23RR Door Latch Assembly - Right Rear
A23LR Door Latch Assembly - Left Rear
2
1250 BK
1150 BK
G312
G311

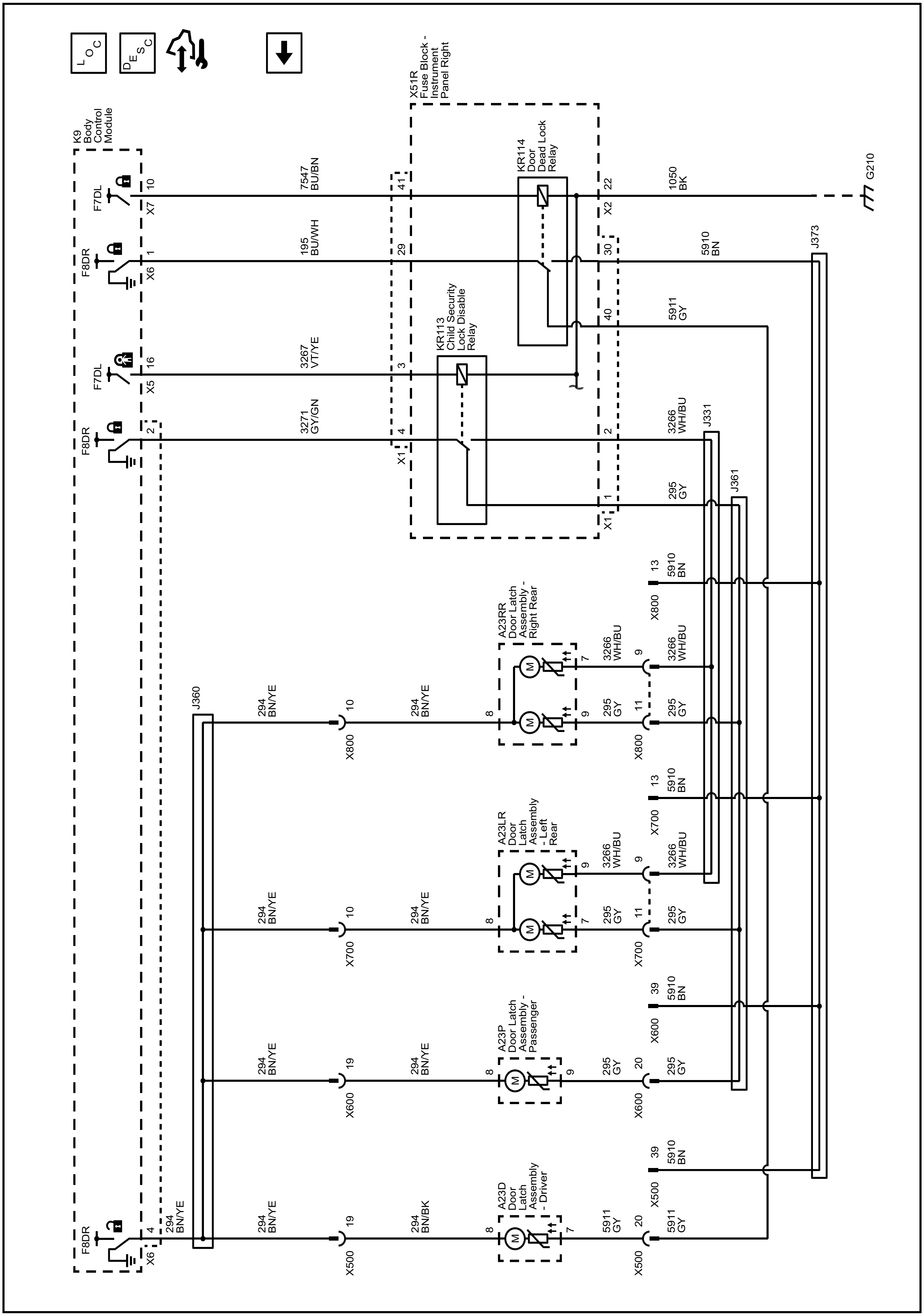
# Door Lock/Indicator Schematics (Indicators (A31))


4914594
K9 Body Control Module
P16 Instrument Cluster
P9 Driver Information Center Display
A90 Logic
M74D Window Motor - Driver
S79P Window Switch - Passenger
S79LR Window Switch - Left Rear
S79RR Window Switch - Right Rear
6
745 GY
1
A23D Door Latch Assembly - Driver
3
1150 BK
8
746 GY
X605
46
746 GY
5
A23P Door Latch Assembly - Passenger
3
1250 BK
2
747 GY/WH
1
A23LR Door Latch Assembly - Left Rear
3
1150 BK
G311
2
748 GY/WH
5
A23RR Door Latch Assembly - Right Rear
3
1250 BK
G312

# Door Lock/Indicator Schematics (Actuators (Standard Cab))


4914596
K9
Body
Control
Module
F7DL
X7
10
7547
BU/BN
F8DR
X6
1
195
BU/WH
F7DL
X5
16
3267
VT/YE
F8DR
2
3271
GY/GN
X51R
Fuse Block -
Instrument
Panel Right
41
29
3
4
X1
KR114
Door
Dead Lock
Relay
KR113
Child Security
Lock Disable
Relay
22
X2
30
40
1
X1
1050
BK
G210
5910
BN
J373
F8DR
X6
4
294
BN/YE
J360
294
BN/YE
19
X600
294
BN/YE
8
A23P
Door Latch
Assembly -
Passenger
M
9
295
GY
20
X600
295
GY
39
5910
BN
X600
294
BN/YE
19
X500
294
BN/BK
8
A23D
Door
Latch
Assembly
- Driver
M
7
5911
GY
20
X500
5911
GY
39
5910
BN
X500

## Door Lock/Indicator Schematics (Actuators (Crew Cab))


4914597
K9 Body Control Module
F7DL
X7 10
F8DR
X6 1
F7DL
X5 16
F8DR
2
F8DR
X6 4
7547 BU/BN
195 BU/WH
3267 VT/YE
3271 GY/GN
294 BN/YE
X51R Fuse Block - Instrument Panel Right
41
29
3
X1 4
KR113 Child Security Lock Disable Relay
KR114 Door Dead Lock Relay
X2 22
30
40
2
X1 1
1050 BK
G210
5910 BN
5911 GY
3266 WH/BU
295 GY
J373
J331
J361
J360
X800 13
A23RR Door Latch Assembly - Right Rear
7
9
8
X800 10
X800 9
X800 11
X700 13
A23LR Door Latch Assembly - Left Rear
X700 10
X700 9
X700 11
X600 39
A23P Door Latch Assembly - Passenger
X600 19
X600 20
X500 39
A23D Door Latch Assembly - Driver
X500 19
X500 20
294 BN/BK
M

# Description and Operation

## Door Ajar Indicator Description and Operation

### Door Ajar Indicator System Components

The door ajar indicator system consists of the following components:

- Body control module
- Instrument cluster
- Driver door latch
- Passenger door latch
- Left rear door latch
- Right rear door latch
- Driver window motor (A31)
- Passenger window switch (A31)
- Left rear window switch ( A31)
- Right rear window switch (A31)

### Door Ajar System

Depending upon if the vehicle is a standard cab, extended cab or crew cab and/or is equipped with power windows or without power windows affects how the driver and passenger door ajar signal circuits are configured and monitored.

### Driver Door Ajar (With A31)

The driver window motor will provide a 12V signal to the driver door ajar switch within the door latch to indicate the status of the door. When the driver door is open, the contract within the ajar switch closes providing a ground part for the signal circuit. The driver window motor will detect the voltage drop in the ajar signal circuit and will send a serial data message to the body control module. The body control module will then send a message to the instrument cluster which will illuminate the door ajar icon.

### Passenger and Rear Doors Ajar (With A31)

The passenger and rear window switches provide a 12V signal to the respective door ajar switch within the door latch to indicate the status of the door. When the door is open, the contract within the ajar switch closes providing a ground part for the signal circuit. The window switch will detect the voltage drop in the ajar signal circuit and will send a serial data message to the body control module. The body control module will then send a message to the instrument cluster which will illuminate the door ajar icon.

### Driver, Passenger and Rear Doors Ajar (Without A31)

The body control module provides a 12V signal to each door ajar switch within the door latch to indicate the status of the door. When the door is open, the contract within the ajar switch closes providing a ground part for the signal circuit. The body control module will detect the voltage drop in the ajar signal circuit and will send a message to the instrument cluster which will illuminate the door ajar icon

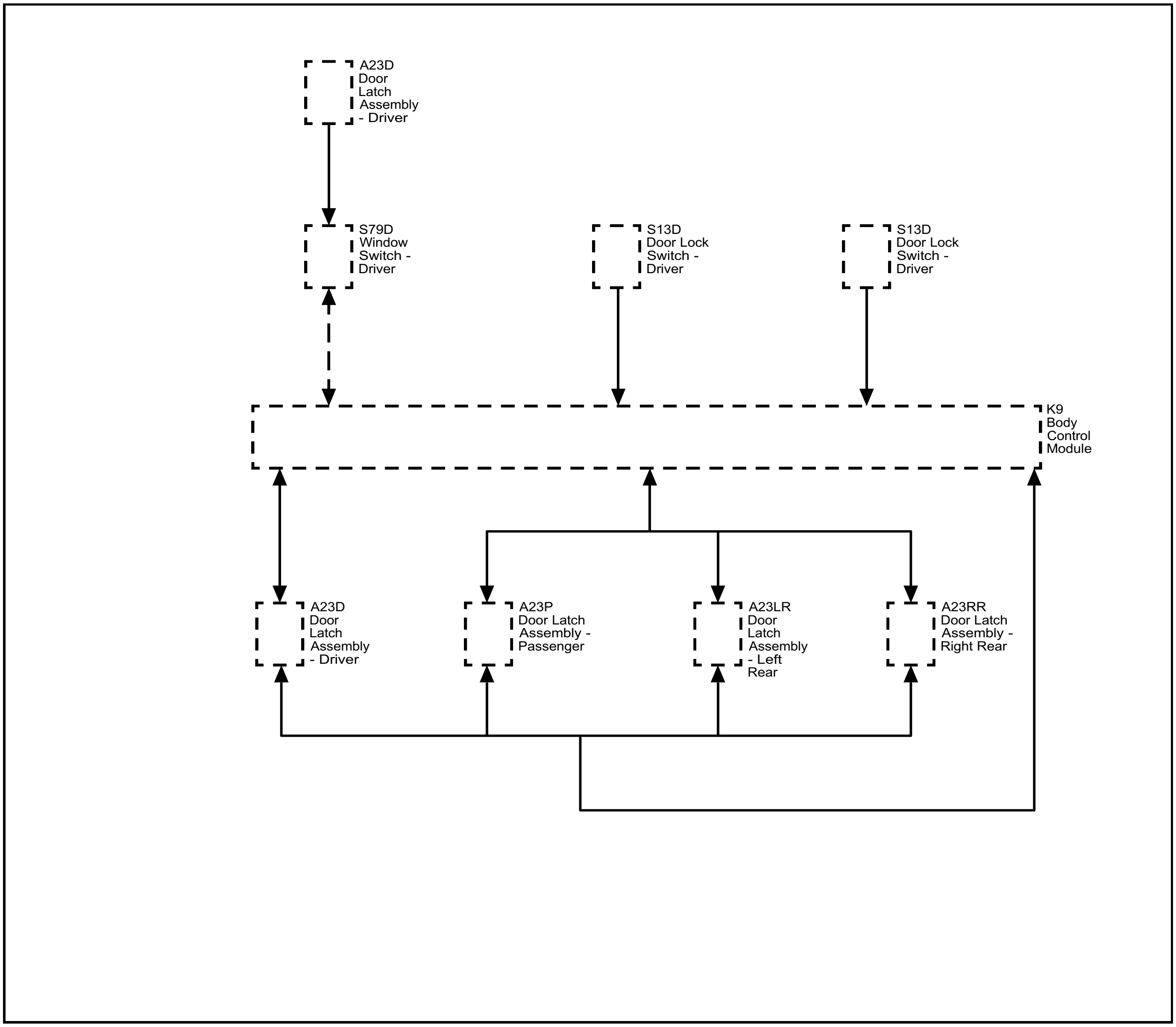
## Power Door Locks Description and Operation

### Door Lock System Components

The power door lock system consists of the following components:

- Driver door lock switch
- Child door lockout switch (Part of the driver window switch)
- Passenger door lock switch
- Front door lock actuators
- Rear door lock actuators (Extended and crew cab models)
- Body control module (BCM)
- Keyless entry control module
- Keyless entry transmitter
- Right instrument panel fuse block (Contains child security lock disable PCB relay)

## Power Door Locks Block Diagram


A23D
Door
Latch
Assembly
- Driver
S79D
Window
Switch -
Driver
S13D
Door Lock
Switch -
Driver
S13D
Door Lock
Switch -
Driver
K9
Body
Control
Module
A23D
Door
Latch
Assembly
- Driver
A23P
Door Latch
Assembly -
Passenger
A23LR
Door
Latch
Assembly
- Left
Rear
A23RR
Door Latch
Assembly -
Right Rear
3623709

## Door Lock System Controls

The power door lock system can be controlled by any of the following:

- A door lock switch LOCK or UNLOCK activation
- A keyless entry transmitter activation

## Door Lock Operation

The BCM supplies a 12 volt signal to the lock and unlock signal circuits of the driver and passenger door lock switches. When the appropriate switch is pressed, a contact within the door lock switch closes providing a ground path for the signal circuit. The BCM will detect the voltage drop in the signal and will command the doors to perform the lock or unlock functions.

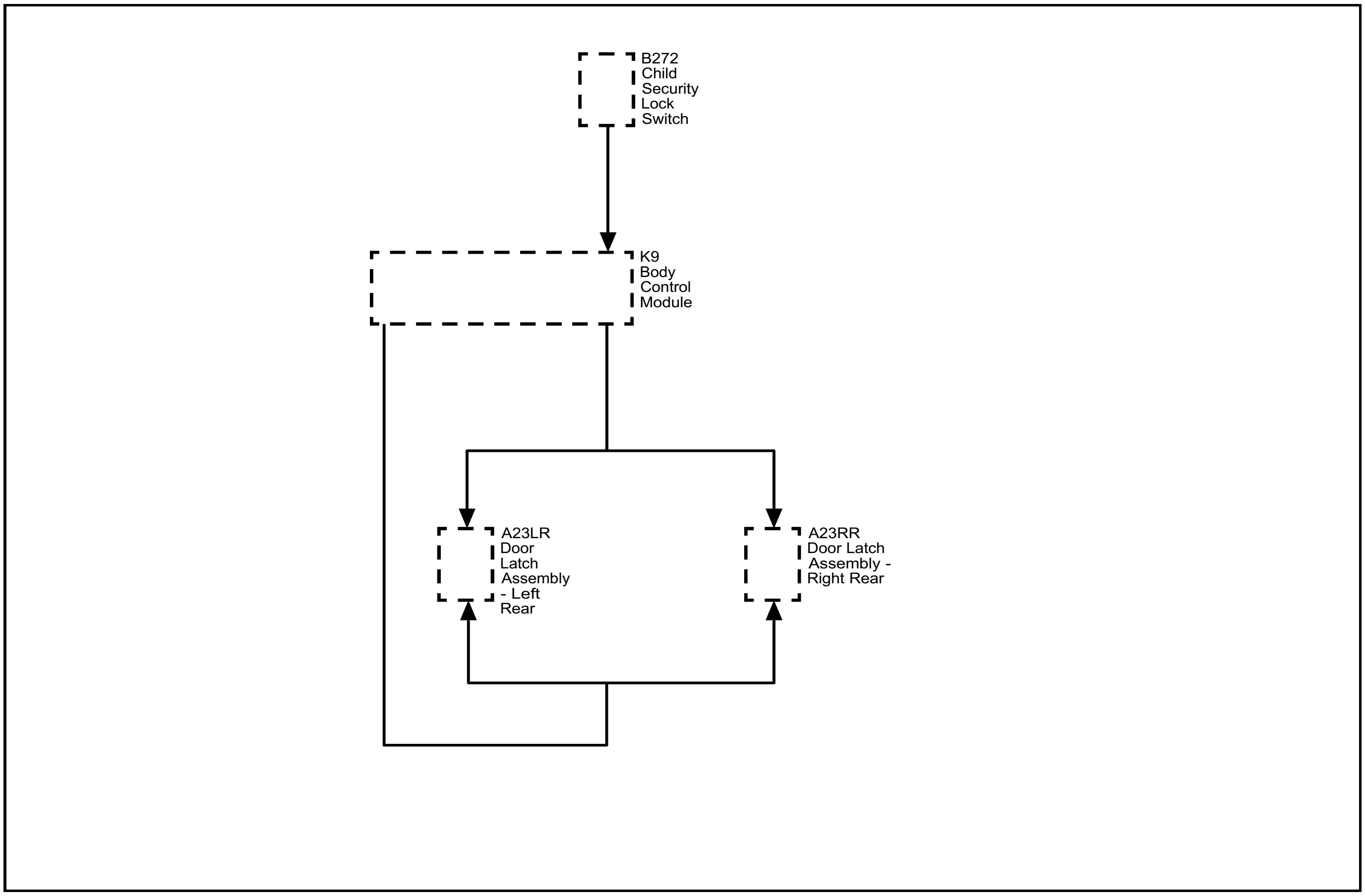
The BCM may also receive a LOCK or UNLOCK command from the keyless entry control module, refer to *Keyless Entry System Description and Operation on page 8-9* for information on the keyless entry system

The BCM, upon receipt of a lock switch lock or unlock signal, will supply voltage to the door lock actuator lock or unlock control circuits. Since the opposite side of the lock actuator is connected to ground through the other lock actuator control circuit, the doors will then lock or unlock as commanded.

The following three circuits are used to operate the lock:

- Driver door unlock
- Passenger doors unlock
- All doors lock

## Power Door Child Lock Block Diagram



3640353

## Child Security Lockout System Operation

The child door lockout switch on the driver window switch controls the child locks on the rear doors. The lockout switch is an input to the body control module and the body control module controls the door lock security relay. When the body control module receives a command from the child door lockout switch, it will apply voltage to the child security lock disable relay coil, this will energize the relay and the contact within the relay will then direct the voltage to activate the left rear and right rear child locks and then isolate them from the normal door lock system to prevent the rear doors from being opened by using the interior rear door handles. An indicator will also illuminate to alert the driver that the child lockout system has been activated. Pushing the switch again will return normal function to the rear interior door handles and the indicator will go out.

The body control module monitors the voltage level of the child security motor status signal circuit, when the child locks have been activated, the contacts of the child security motor status switch (internal to the rear door latch) will close providing a ground path for the signal circuit pulling the voltage low. It is in this manner that the body control module is able to determine if the rear door latch has been successfully been locked out.

The body control module monitors the status of the child security lockout system, when the body control module detects a fault in the system, it will command the child lockout indicator to flash ON and OFF for 30 seconds to alert the driver that the child security lockout system may not be functioning properly.

The body control module will command the child lockout indicator to flash ON and OFF for the following reasons:

- An open/high resistance in either child security motor status signal circuit
- The body control module detects that one or both rear door latches have not activated and are not locked out
- The body control module detects a short to ground or an open/high resistance in the child security lock disable relay control circuit
- A malfunctioning child security lock disable relay
- An open/high resistance in the child security lock motor control circuit

BLANK

# Section 3

# Brakes

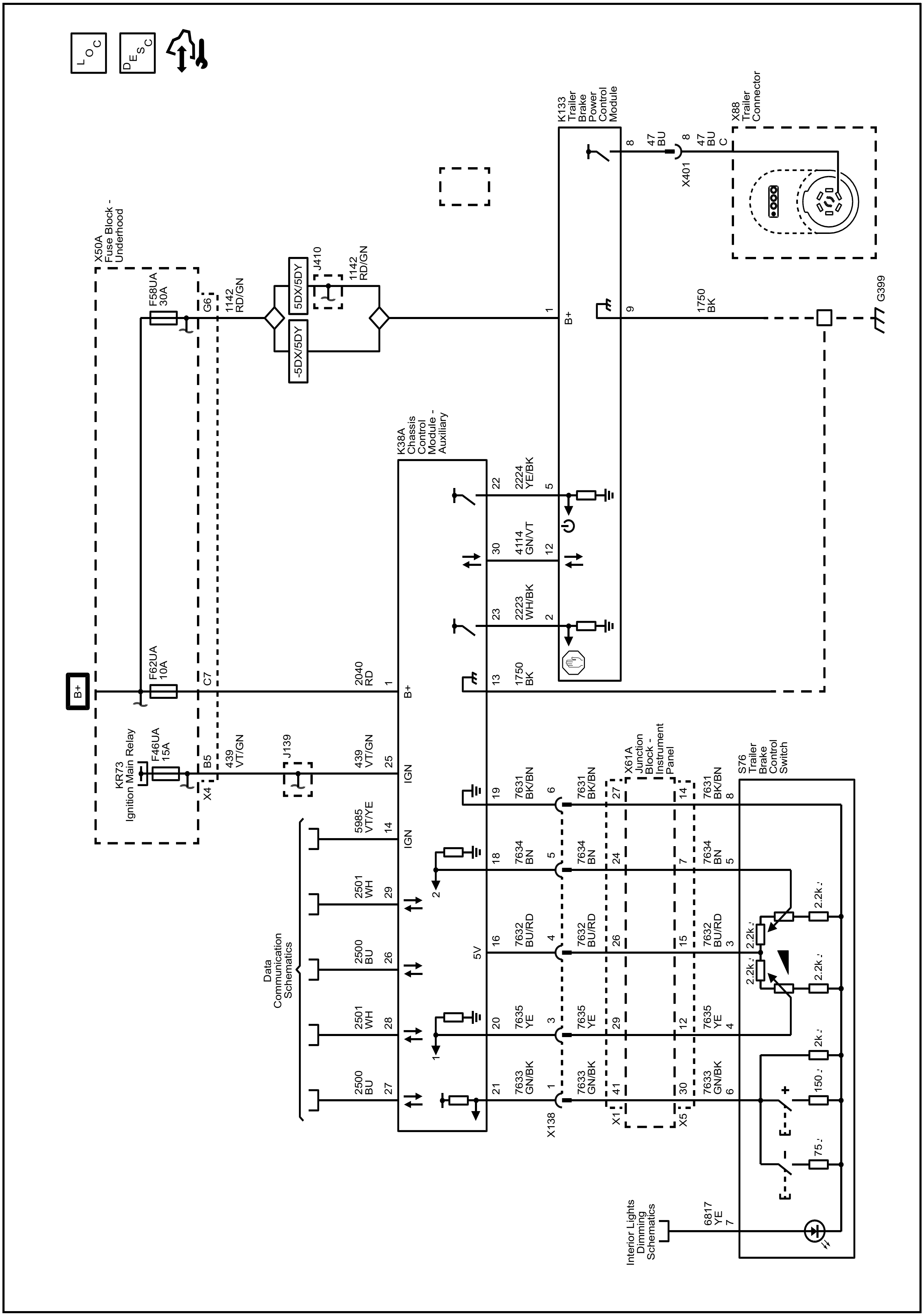
**Trailer Brake Controls** . . . . . . . . . . . . . . . . . . . . . . . . . 3-3
  **Schematic and Routing Diagrams** . . . . . . . . . . . . . . . 3-3
    Trailer Brake Control Schematics . . . . . . . . . . . . . . . . 3-4
  **Description and Operation** . . . . . . . . . . . . . . . . . . . . . . . 3-5
    Trailer Brake Controls Description and Operation . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3-5

BLANK

# Trailer Brake Controls

## Schematic and Routing Diagrams

## Trailer Brake Control Schematics (Trailer Brake (JL1))


4914646
L O C
D E S C
B+
X50A Fuse Block - Underhood
F58UA 30A
G6
1142 RD/GN
F62UA 10A
C7
2040 RD
KR73 Ignition Main Relay
F46UA 15A
B5
X4
439 VT/GN
J139
5DX/5DY
-5DX/5DY
J410
K38A Chassis Control Module - Auxiliary
B+
IGN
5985 VT/YE
Data Communication Schematics
2501 WH
2500 BU
5V
K133 Trailer Brake Power Control Module
47 BU
X401
47 BU C
X88 Trailer Connector
1750 BK
G399
2224 YE/BK
4114 GN/VT
2223 WH/BK
7631 BK/BN
7634 BN
7632 BU/RD
7635 YE
7633 GN/BK
X138
X61A Junction Block - Instrument Panel
X1
X5
S76 Trailer Brake Control Switch
2.2k Ω
2k Ω
150 Ω
75 Ω
6817 YE
Interior Lights Dimming Schematics

# Description and Operation

## Trailer Brake Controls Description and Operation

A trailer brake control system is used to control the amount of trailer braking power that is made available to trailers with brakes that require a controlled electrical output signal for actuation.

The power output to the trailer brakes is based on both the amount of braking being applied by the vehicle's brake system and on the type of trailer brakes detected.

**The Trailer Brake Control System is compatible with two types of Trailer Brake Systems as listed below:**

1. **Electric Brakes** A controlled electrical output signal energizes an electric-magnet/lever arm assembly that directly actuates the brake mechanism. The GDS name for this system is "Electromagnetic Brakes".
2. **Electric Over Hydraulic Brakes** A controlled electrical output signal energizes a remote, trailer mounted hydraulic pump to build brake pressure in a closed hydraulic system on the trailer. The hydraulic fluid pressure actuates the brake mechanism. The GDS name for this system is "Electrohydraulic Brakes".

**Trailer Brake Output Versus Trailer Brake Type**

- The trailer brake system characterizes the trailer brakes as either Electric Brake or Electric Over Hydraulic Brake automatically. This characterization may be affected by the number, type, and age of the trailer brake magnets, as well as any other devices installed on the trailer brakes (i.e. adapters for Electric Over Hydraulic brake functionality).
- The trailer brake system is fully operational with either characterization.
- Some features of the trailer brake system may be different based on the trailer brake type characterization. An example of this is at zero speed, where pressing the service brake pedal will produce output when the trailer brakes are characterized as Electric Brakes, but not when characterized as Electric Over Hydraulic Brakes.
- Sliding the manual trailer brake apply lever will produce output at zero speed for either characterization.

The user gain allows the driver to adjust the amount of trailer brake output to match the trailer load and road surface. The controller determines the desired trailer brake output and provides a control signal to the K133 Trailer Brake Power Control Module. The K133 Trailer Brake Power Control Module amplifies the signal and provides the output required to activate the Electric or Electric Over Hydraulic trailer brakes.

The trailer brake control can support up to a maximum of four axles with electric trailer brakes (8 brake magnets).

Connecting a trailer that is not compatible with the trailer brake system may result in reduced or complete loss of trailer braking. There may be an increase in stopping distance or trailer instability which could result in personal injury or damage to the vehicle, trailer or other property. An aftermarket controller may be available for use with trailers with surge or air trailer brake systems.

To determine the type of brakes on your trailer and the availability of controllers, check with your trailer manufacturer or dealer. Do not power up an aftermarket controller with the factory brake controller at the same time.

**The vehicle is equipped with the following trailer braking components:**

- K38A Chassis Control Module-Auxiliary
- K133 Trailer Brake Power Control Module
- S76 Trailer Brake Control Panel
- Manual Trailer Brake Apply
- Trailer Gain Adjustment
- Trailer Brake Driver Information Center Display

### Chassis Control Module-Auxiliary

The K38A Chassis Control Module-Auxiliary is a serviceable GMLAN module. The chassis control module sends the low power commanded duty cycle signal to the trailer brake power control module. The trailer brake power control module amplifies the signal and provides an output that is required to drive the trailer brakes.

### Trailer Brake Power Control Module

The K133 Trailer Brake Power Control Module (TBPM) is a solid state power switching module that supplies power to the trailer brakes at the input command duty cycle. Diagnostic messages are sent from the TBPM to the CCM on a dedicated LIN bus.

### Trailer Brake Control Panel

The S76 Trailer Brake Control Panel contains the trailer gain and manual apply switches. It is located on the instrument panel to the left of the steering column. Refer to the instrument panel overview for more information on the location. The control panel and switches allows you to adjust the amount of output, referred to as trailer gain, available to the Electric or Electric Over Hydraulic brakes. It also allows you to manually apply the trailer brakes. The trailer brake control panel and switches are used along with the trailer brake display page on the driver information center to adjust and display power output to the trailer brakes.

## Manual Trailer Brake Apply

The manual trailer brake apply lever is located on the S76 Trailer Brake Control Panel and is used to apply the trailer's Electric or Electric Over Hydraulic brakes independent of the vehicle's brakes. This lever is used in the trailer gain adjustment procedure to properly adjust the power output to the trailer brakes.

Sliding the lever to the left will apply only the trailer brakes. The power output to the trailer is indicated in the trailer brake display page in the Driver Information Center (DIC). If the vehicle's service brakes are applied while using the manual trailer brake apply lever, the trailer output power will be the greater of the two.

The trailer and the vehicle's brake lamps will come on when either the vehicle's braking or manual trailer brakes are applied.

## Trailer Gain Adjustment

Trailer gain should be set for a specific trailering condition and must be adjusted any time vehicle loading, trailer loading or road surface conditions change. It is important to re-adjust trailer gain any time the tow vehicle, trailer loading or road surface conditions change or it you notice trailer wheel lock-up at any time while you are towing.

Setting the trailer gain properly is needed for the best trailer stopping performance. A trailer that is over-gained may result in locked trailer brakes. A trailer that is under-gained may result in not enough trailer braking. Both of these conditions may result in poor stopping and stability of the vehicle and trailer.

### Trailer Gain Adjustment Procedure

- Adjust trailer gain in 0.5 step increments up to 10 gain setting by using the gain adjustment +/− buttons on the trailer brake control panel switch. Pressing and holding a gain button will cause the trailer gain to continuously increment or decrement. To turn the output to the trailer off, set the gain to zero.
- Drive the tow vehicle and trailer combination on a level surface representative of the towing condition and free of traffic at approximately 32–40 km/h (20–25 mph) and fully apply the manual trailer brake apply lever mechanism located on the trailer brake control panel switch. Adjusting the trailer gain at slower speeds may result in an incorrect gain setting.
- Adjust the trailer gain to just below the threshold of trailer wheel lock-up . Trailer wheel lock-up may not occur if towing a heavily loaded trailer. In this case, adjust the trailer gain to the highest allowable setting for the towing condition.

## Hill Start Assist

The hill start assist allows the driver to launch the vehicle without a roll back when the driver is moving their foot from the brake pedal to the accelerator pedal. Refer to the hill start assist system in the anti-lock brake system description and operation document for more information.

## Trailer Sway Control

The trailer sway control can detect the vehicle yaw instability, caused by an attached trailer. Refer to the trailer sway control system in the anti-lock brake system description and operation document for more information.

## Driver Information Center Indicators and Messages

The following indicators are used to inform the driver of several different conditions:

### Trailer Connected

This message will be briefly displayed when a trailer with Electric or Electric Over Hydraulic brakes is first connected to the vehicle. This message will automatically turn off in about ten seconds. The driver can also acknowledge this message before it automatically turns off.

### Check Trailer Wiring

This message will be displayed if:

- The system detects that a trailer with Electric or Electric Over Hydraulic brakes is connected to the vehicle and then the trailer harness becomes disconnected from the vehicle.
- The trailer connection is recognized initially and then a disconnect occurs while the vehicle is stationary. This message will automatically turn off in about thirty seconds. This message will also turn off if the driver acknowledges this message off or if the trailer harness is reconnected.
- A disconnect of the trailer wiring harness occurs while the vehicle is moving. The Check Trailer Wiring message will continue until the ignition is turned off. The message will also turn off if the driver acknowledges this message off or it the trailer harness is re-connected or repairs are completed.
- There is an electrical fault in the wiring to the electric trailer brakes. The Check Trailer Wiring message will continue as long as there is an electrical fault in the trailer wiring. This message will also turn off if the driver acknowledges this message off.
- A poor connection at the 7–way connector may cause the Check Trailer Wiring message. Some aftermarket 7–way trailer side connector adapters or plugs may cause deformation or excessive wear to the vehicle's trailer terminals. It is recommended that you use an OEM or Pollak heavy duty 7–way trailer side connector adapter.

## Service Trailer Brake System

This message will be displayed when there is a problem with the trailer brake control system. The trailer brake system may not be fully functional, or may not be functioning at all. The trailer brake system is designed to provide trailer braking, if possible, even when faults prevent it from being fully functional. This reduced functionality includes:

1. Providing trailer braking when the master cylinder pressure or brake pedal switch are faulted.
2. Providing trailer braking when hill start assist and trailer sway control communication is faulted.
3. Providing trailer braking when certain manual trailer brake apply lever faults are present.

These conditions should be repaired to allow the trailer brake system to be fully functional.

## Trailer Gain and Output Display

This display menu can be accessed by scrolling through the DIC menu, or any time the trailer gain +/− button is depressed, or the manual trailer brake apply lever is actuated. The trailer output is displayed from 0 to full output and indicates the output power provided to the trailer brakes, relative to the gain setting.

After the electrical connection is made to a trailer equipped with electric brakes or electric over hydraulic brakes, the TRAILER CONNECTED message will be displayed momentarily on the DIC. The Trailer Brake Display Page can be selected on the DIC showing TRAILER GAIN and OUTPUT, after all vehicle related service messages are acknowledged by the driver. Depending on which instrument panel cluster is in the vehicle, the DIC may display dashed lines, a greyed out display, or it may be blank signifying a disconnected trailer or a trailer brake fault condition.

BLANK

# Section 4

# Driver Information and Entertainment

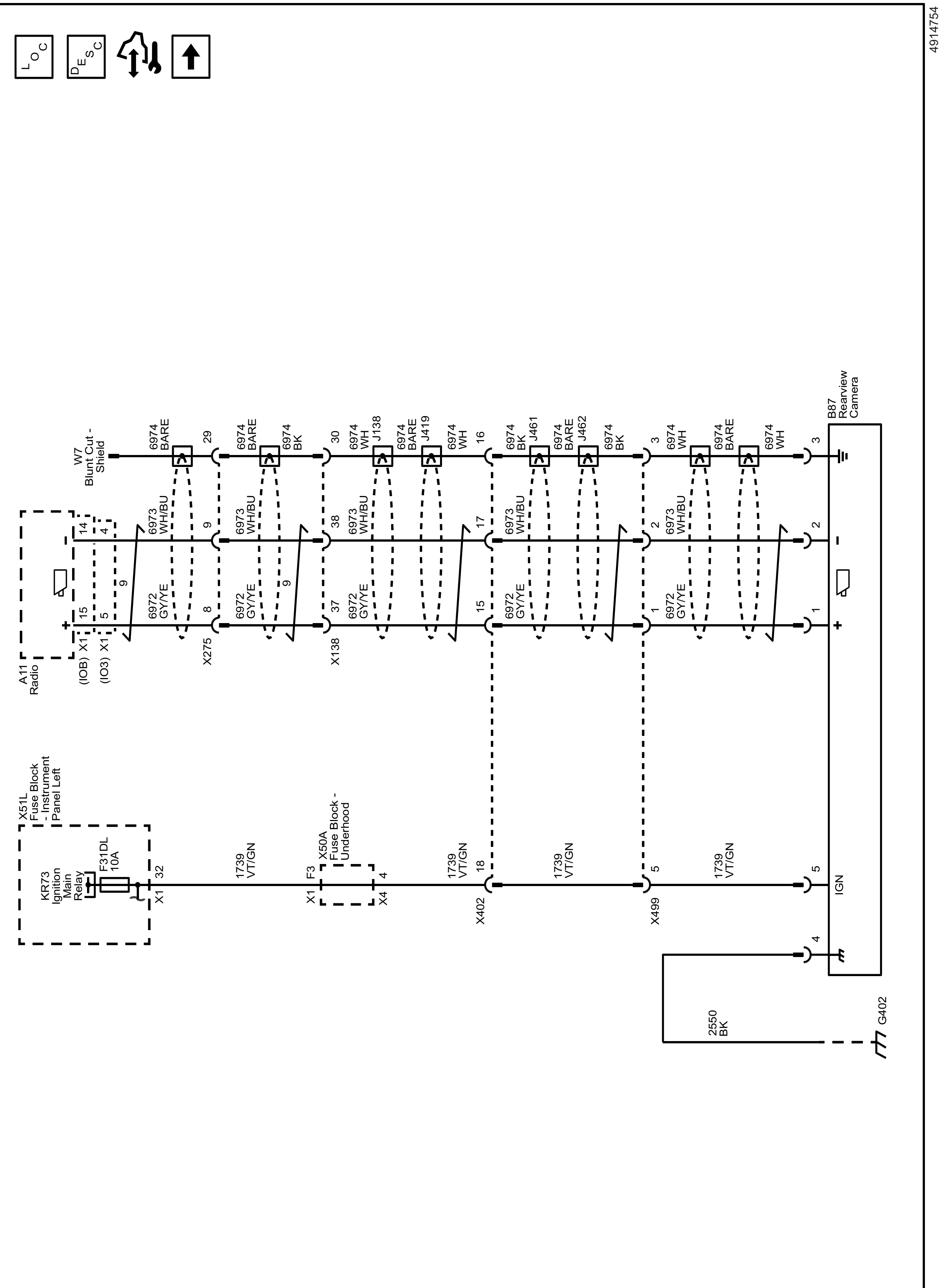
**Image Display Cameras** . . . . . . . . . . . . . . . . . . . . . . . 4-3
**Schematic and Routing Diagrams** . . . . . . . . . . . . . . . 4-3
Image Display Camera Schematics . . . . . . . . . . . . . 4-4
**Description and Operation** . . . . . . . . . . . . . . . . . . . . . . 4-6
Rear Vision Camera Description and Operation (with IOB/IOR/IO3) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4-6
Rear Vision Camera Description and Operation (with IO5/IO6) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4-6

BLANK

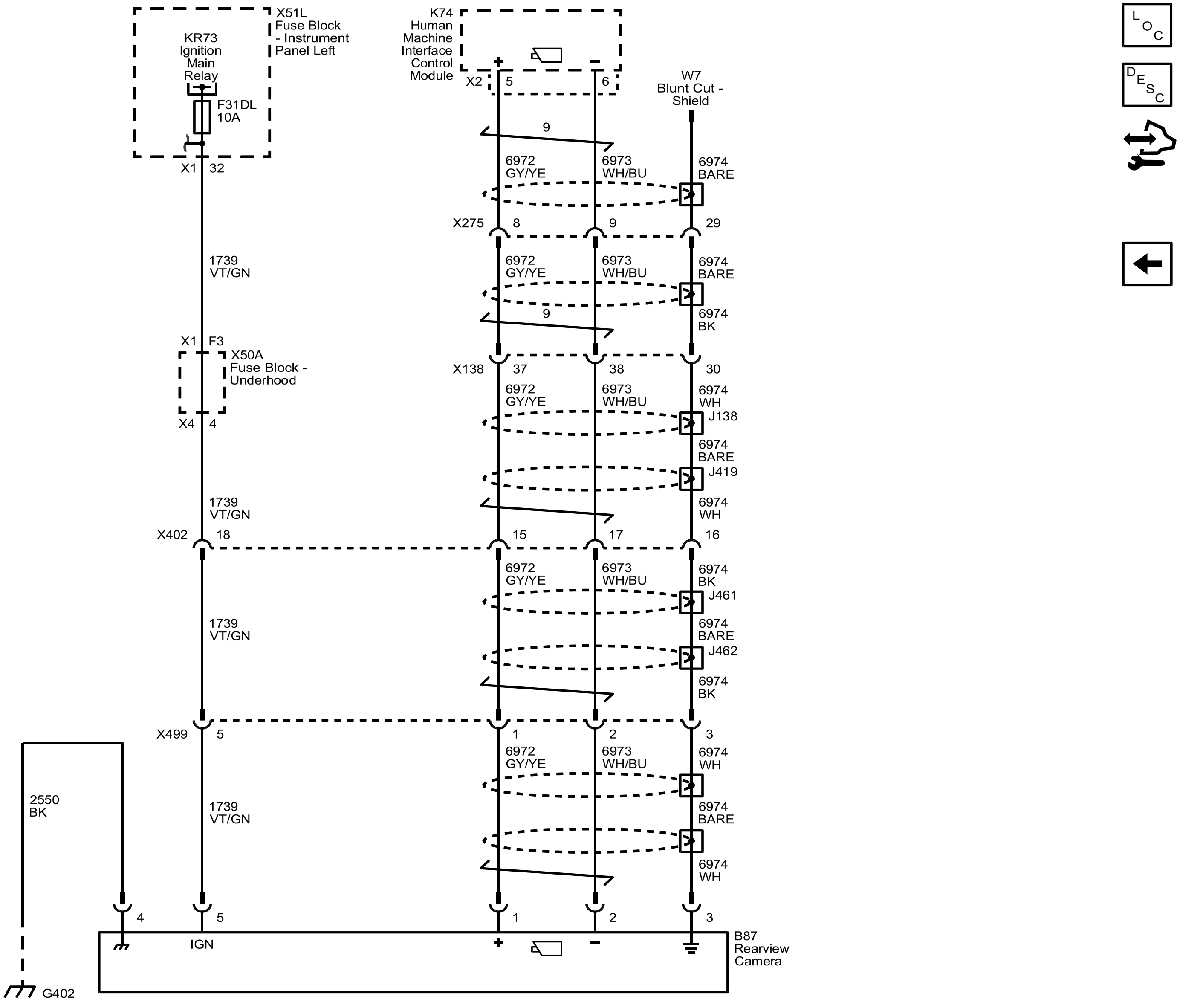
# Image Display Cameras

## Schematic and Routing Diagrams

## Image Display Camera Schematics (Rearview Camera (UVC+IOB/IO3))


4914754
W7
Blunt Cut - Shield
A11
Radio
(IOB) X1
(IO3) X1
14
15
4
5
9
6974
BARE
6974
BK
6974
WH
J138
J419
J461
J462
29
30
16
3
6973
WH/BU
6972
GY/YE
9
38
17
2
8
37
15
1
X275
X138
B87
Rearview
Camera
IGN
X51L
Fuse Block - Instrument Panel Left
KR73
Ignition
Main
Relay
F31DL
10A
X1
32
1739
VT/GN
X50A
Fuse Block - Underhood
F3
X1
X4
4
18
X402
5
X499
2550
BK
G402

# Image Display Camera Schematics (Rearview Camera (UVC+IO5/IO6))


X51L
Fuse Block
- Instrument
Panel Left
KR73
Ignition
Main
Relay
F31DL
10A
X1 32
1739
VT/GN
X1 F3
X50A
Fuse Block -
Underhood
X4 4
1739
VT/GN
X402 18
1739
VT/GN
X499 5
1739
VT/GN
2550
BK
4
5
IGN
G402
K74
Human
Machine
Interface
Control
Module
X2 5 6
W7
Blunt Cut -
Shield
9
6972
GY/YE
6973
WH/BU
6974
BARE
X275 8 9 29
6972
GY/YE
6973
WH/BU
6974
BARE
9
6974
BK
X138 37 38 30
6972
GY/YE
6973
WH/BU
6974
WH
J138
6974
BARE
J419
6974
WH
15 17 16
6972
GY/YE
6973
WH/BU
6974
BK
J461
6974
BARE
J462
6974
BK
1 2 3
6972
GY/YE
6973
WH/BU
6974
WH
6974
BARE
6974
WH
1 2 3
B87
Rearview
Camera
4914755

# Description and Operation

## Rear Vision Camera Description and Operation (with IOB/IOR/IO3)

### Rear Vision Camera System Operation

The rear vision camera system consists of a video camera located at the rear of the vehicle and the Rado.

When the transmission is placed into REVERSE, a signal indicates to the Radio that the vehicle is in reverse and image display is requested. The rear vision camera receives ignition voltage and a constant ground to power the camera. Video signal + and video signal – circuits carry the video image from the rear vision camera to the radio. Additionally, the video signal circuits are shielded to prevent any interference which may lead to a loss of video signal resolution and a degraded video image. The shield is provided a ground path by the rear vision camera.

The following conditions may cause a degraded rear vision camera image:

- Ice, snow, or mud has built up on the rear vision camera
- Dark conditions
- Extreme light conditions, such as glare from the sun or the headlights of another vehicle
- Damage to the rear of the vehicle
- Extreme high temperatures or extreme temperature changes

If a malfunction is detected in the system, Service Rear Vision Camera may be displayed on the Info Display Module as an indicator to the customer that a problem exists that requires service.

## Rear Vision Camera Description and Operation (with IO5/IO6)

### Rear Vision Camera System Operation

The rear vision camera system consists of a video camera located at the rear of the vehicle and the Human Machine Interface Control Module.

When the transmission is placed into REVERSE, a signal indicates to the Human Machine Interface Control Module that the vehicle is in reverse and image display is requested. The rear vision camera receives ignition voltage and a constant ground to power the camera. Video signal + and video signal – circuits carry the video image from the rear vision camera to the Human Machine Interface Control Module. Additionally, the video signal circuits are shielded to prevent any interference which may lead to a loss of video signal resolution and a degraded video image. The shield is provided a ground path by the rear vision camera.

The following conditions may cause a degraded rear vision camera image:

- Ice, snow, or mud has built up on the rear vision camera
- Dark conditions
- Extreme light conditions, such as glare from the sun or the headlights of another vehicle
- Damage to the rear of the vehicle
- Extreme high temperatures or extreme temperature changes

If a malfunction is detected in the system, Service Rear Vision Camera may be displayed on the Info Display Module as an indicator to the customer that a problem exists that requires service.

# Section 5

# Engine/Propulsion

**12 V Starting and Charging** . . . . . . . . . . . . . . . . . . . 5-3
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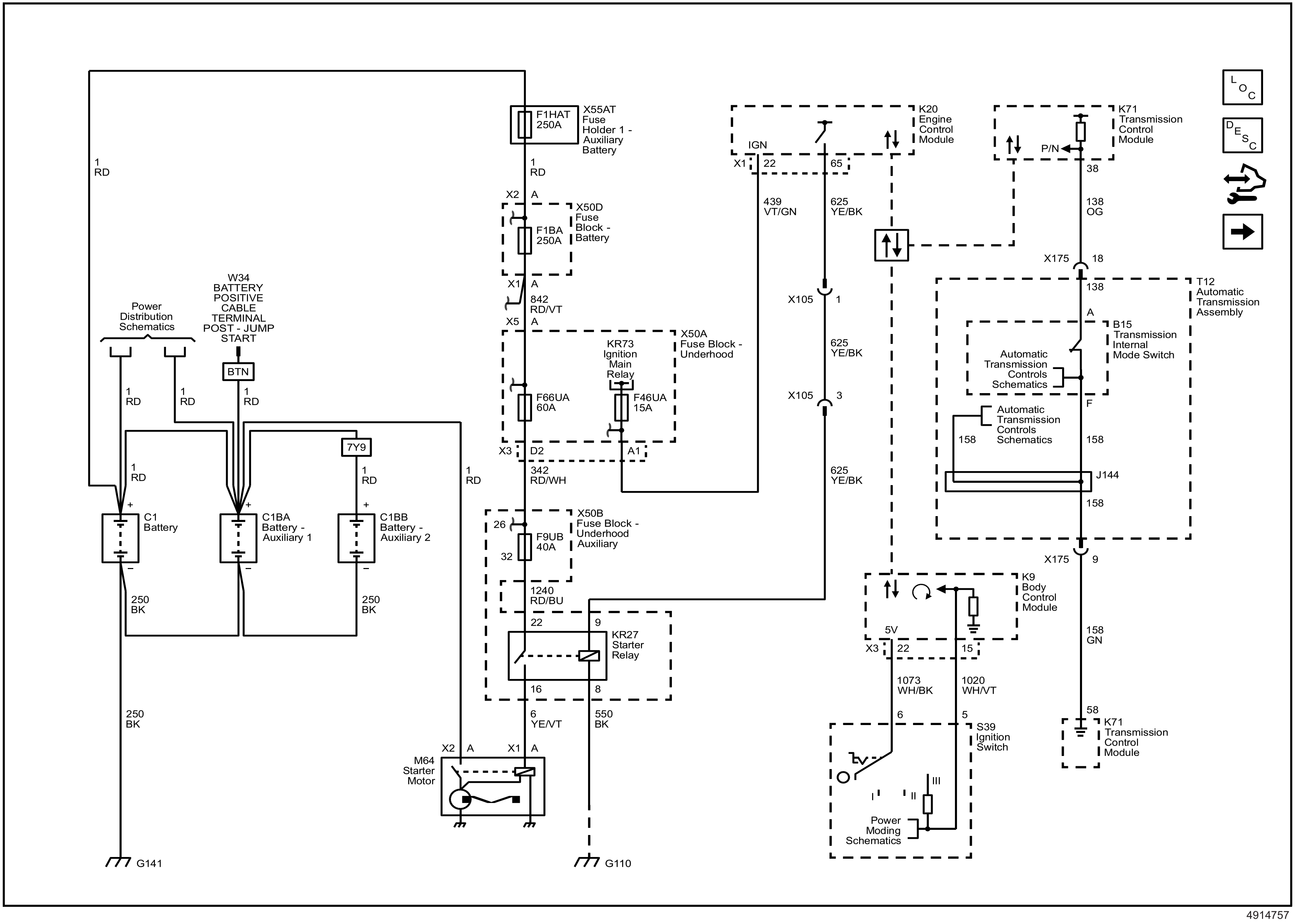
    Starting and Charging Schematics . . . . . . . . . . . . . . . 5-4
  **Description and Operation** . . . . . . . . . . . . . . . . . . . . . . . 5-6
    Starting System Description and Operation . . . . . . 5-6

BLANK

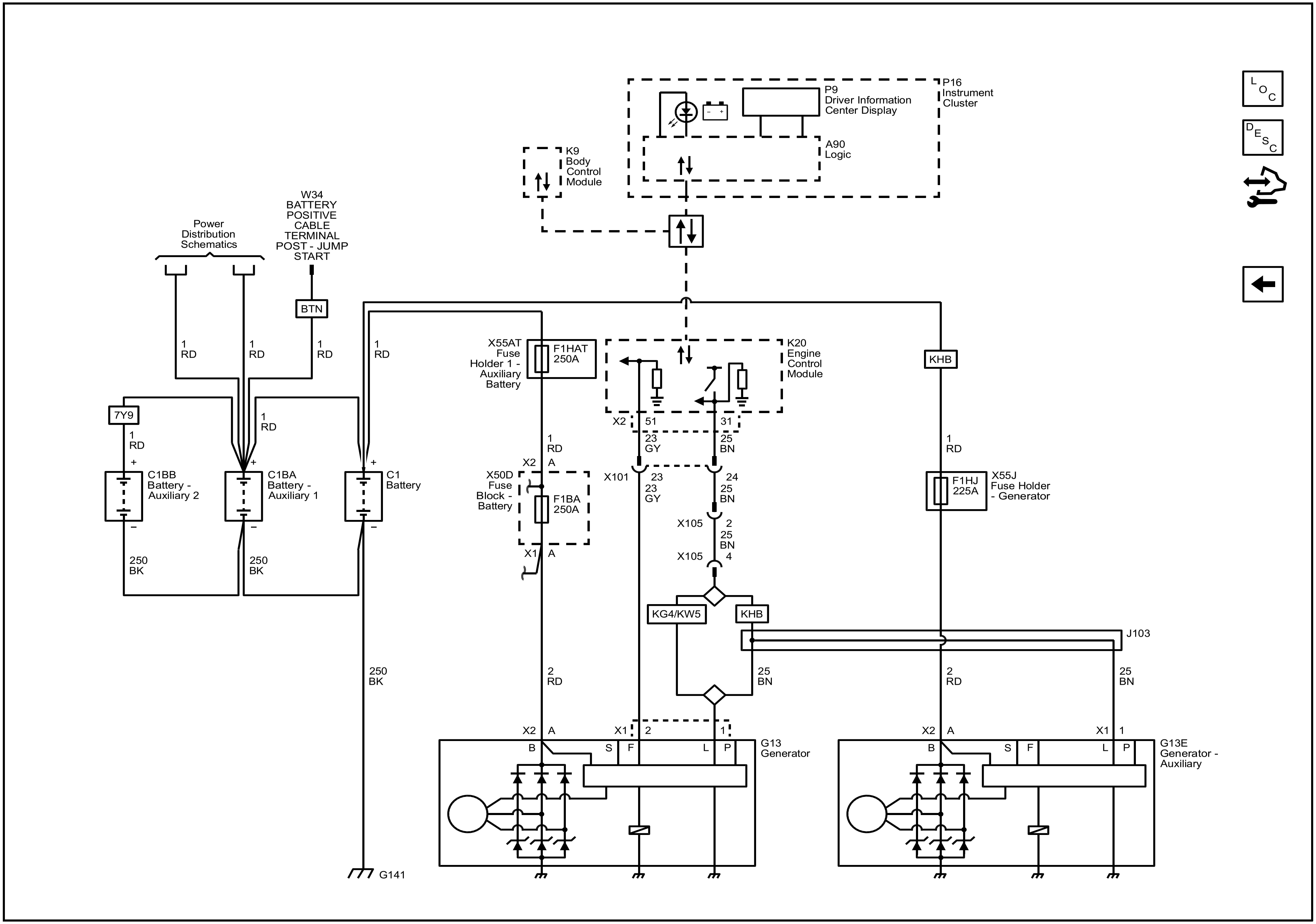
# 12 V Starting and Charging

## Schematic and Routing Diagrams

## Starting and Charging Schematics (Starting)


L O C
D E S C
F1HAT 250A
X55AT Fuse Holder 1 - Auxiliary Battery
1 RD
X2 A
X50D Fuse Block - Battery
F1BA 250A
X1 A
842 RD/VT
X5 A
X50A Fuse Block - Underhood
KR73 Ignition Main Relay
F46UA 15A
F66UA 60A
X3 D2
A1
342 RD/WH
X50B Fuse Block - Underhood Auxiliary
26
F9UB 40A
32
1240 RD/BU
22
9
KR27 Starter Relay
16
8
6 YE/VT
550 BK
X2 A
X1 A
M64 Starter Motor
G110
G141
250 BK
Power Distribution Schematics
W34 BATTERY POSITIVE CABLE TERMINAL POST - JUMP START
BTN
7Y9
C1 Battery
C1BA Battery - Auxiliary 1
C1BB Battery - Auxiliary 2
K20 Engine Control Module
IGN
X1 22
65
439 VT/GN
625 YE/BK
X105 1
X105 3
K71 Transmission Control Module
P/N
38
138 OG
X175 18
T12 Automatic Transmission Assembly
138
A
B15 Transmission Internal Mode Switch
Automatic Transmission Controls Schematics
F
158
J144
X175 9
K9 Body Control Module
5V
X3 22
15
1073 WH/BK
1020 WH/VT
6
5
S39 Ignition Switch
I
II
III
Power Moding Schematics
158 GN
58
4914757

# Starting and Charging Schematics (Charging)


P16
Instrument
Cluster
P9
Driver Information
Center Display
A90
Logic
K9
Body
Control
Module
W34
BATTERY
POSITIVE
CABLE
TERMINAL
POST - JUMP
START
Power
Distribution
Schematics
BTN
1 RD
1 RD
1 RD
1 RD
1 RD
1 RD
7Y9
C1BB
Battery -
Auxiliary 2
C1BA
Battery -
Auxiliary 1
C1
Battery
250 BK
250 BK
250 BK
G141
X55AT
Fuse
Holder 1 -
Auxiliary
Battery
F1HAT
250A
X50D
Fuse
Block -
Battery
F1BA
250A
X2 A
X1 A
2 RD
K20
Engine
Control
Module
X2 51
31
23 GY
25 BN
X101
23
23 GY
24
25 BN
X105
2
25 BN
X105 4
KG4/KW5
KHB
J103
25 BN
KHB
1 RD
X55J
Fuse Holder
- Generator
F1HJ
225A
2 RD
25 BN
X2 A
X1 2
1
B
S
F
L
P
G13
Generator
X2 A
X1 1
G13E
Generator -
Auxiliary
LOC
DESC

4914759

# Description and Operation

## Starting System Description and Operation

### Starter Motor Operation (Without KL9)

The starter motors are non-repairable. They have pole pieces that are arranged around the armature. Both solenoid windings are energized. The pull-in winding circuit is completed to the ground through the starter motor. The windings work together magnetically to pull and hold in the plunger. The plunger moves the shift lever. This action causes the starter drive assembly to rotate on the armature shaft spline as it engages with the flywheel ring gear on the engine. Moving at the same time, the plunger also closes the solenoid switch contacts in the starter solenoid. Full battery voltage is applied directly to the starter motor and it cranks the engine.

As soon as the solenoid switch contacts close, current stops flowing thorough the pull-in winding because battery voltage is applied to both ends of the windings. The hold-in winding remains energized. Its magnetic field is strong enough to hold the plunger, shift lever, starter drive assembly, and solenoid switch contacts in place to continue cranking the engine. When the engine starts, pinion overrun protects the armature from excessive speed until the switch is opened.

When the crank signal is removed, the starter relay opens and battery voltage is removed from the starter solenoid S terminal. Current flows from the motor contacts through both windings to the ground at the end of the hold-in winding. However, the direction of the current flow through the pull-in winding is now opposite the direction of the current flow when the winding was first energized.

The magnetic fields of the pull-in and hold-in windings now oppose one another. This action of the windings, along with the help of the return spring, causes the starter drive assembly to disengage and the solenoid switch contacts to open simultaneously. As soon as the contacts open, the starter circuit is turned off.

### Enhanced Starter Motor Operation (KL9)

The Engine Stop/Start system in GM vehicles automatically turns off the engine when the vehicle comes to a stop under certain driving conditions, and can quickly restart the engine in about 0.3 seconds when commanded to do so.

In order to smoothly restart the engine as quickly as possible while managing the greater number of engine starts, the Stop/Start system uses an enhanced starter motor that operates differently from a conventional starter motor. It has a high performance electric motor and a stronger pinion engagement mechanism than a conventional starter. It also has independent control of the pinion and motor.

The enhanced starter motor continues using the typical pinion engagement mechanism with a starter solenoid that drives the pinion gear to engage or disengage the flywheel of the engine. When engaged, the starter motor can rotate the engine flywheel and, in turn, the crankshaft.

On the enhanced starter of a Stop/Start system the operation is done in two separate functions inside the solenoid, Starter Motor and Pinion Actuator. Each function controlled individually by the ECM. There are two separate relays to control the two separate parts of the enhanced solenoid:

- KR27 Starter Motor Relay
- KR27C Starter Pinion Actuator Relay

The two individually-controlled relays allow for smooth engagement of the pinion gear into the flywheel with minimum noise and wear.

When the vehicle is coming to a stop, just before the engine stops rotating (at approximately 50 RPM) during stop/start operation, the ECM energizes the Starter Pinion Solenoid Actuator Relay to easily push the pinion gear into the flywheel gear without gear clash. (Fig. 8) When the engine stops rotating during Stop/Start operation (Auto Stop mode), the starter pinion gear is fully engaged, ready for the starter motor to become energized to quickly start the engine again.

A secondary need for the starter pinion to be driven into the flywheel gear before the engine stops rotating is to address quickly changing demands on the engine. For example, when a driver is slowing nearly to a stop — and the Stop/Start system is preparing for Auto Stop mode — but suddenly decides to release the brake and accelerate

In this situation, the engine has already stopped rotating, or nearly so. A conventional starter cannot restart the engine until the engine has completely stopped. However, with the enhanced starter, the starter pinion gear is fully engaged and ready to begin rotating the engine even before it fully stops turning. Otherwise, the engine would actually have to stop rotating before the pinion can engage smoothly to begin a restart.

To prevent a lag in engine operation, the ECM uses predictive speed matching of the flywheel gear speed and the pinion gear speed to engage the pinion gear into the flywheel gear without gear clash before the engine fully stops. By predicting how long it takes the starter motor to spin up using an algorithm, the pinion gear speed can be matched to the flywheel gear speed. The result is an almost instant restart that is possible at extremely low engine speeds.

### Circuit Description

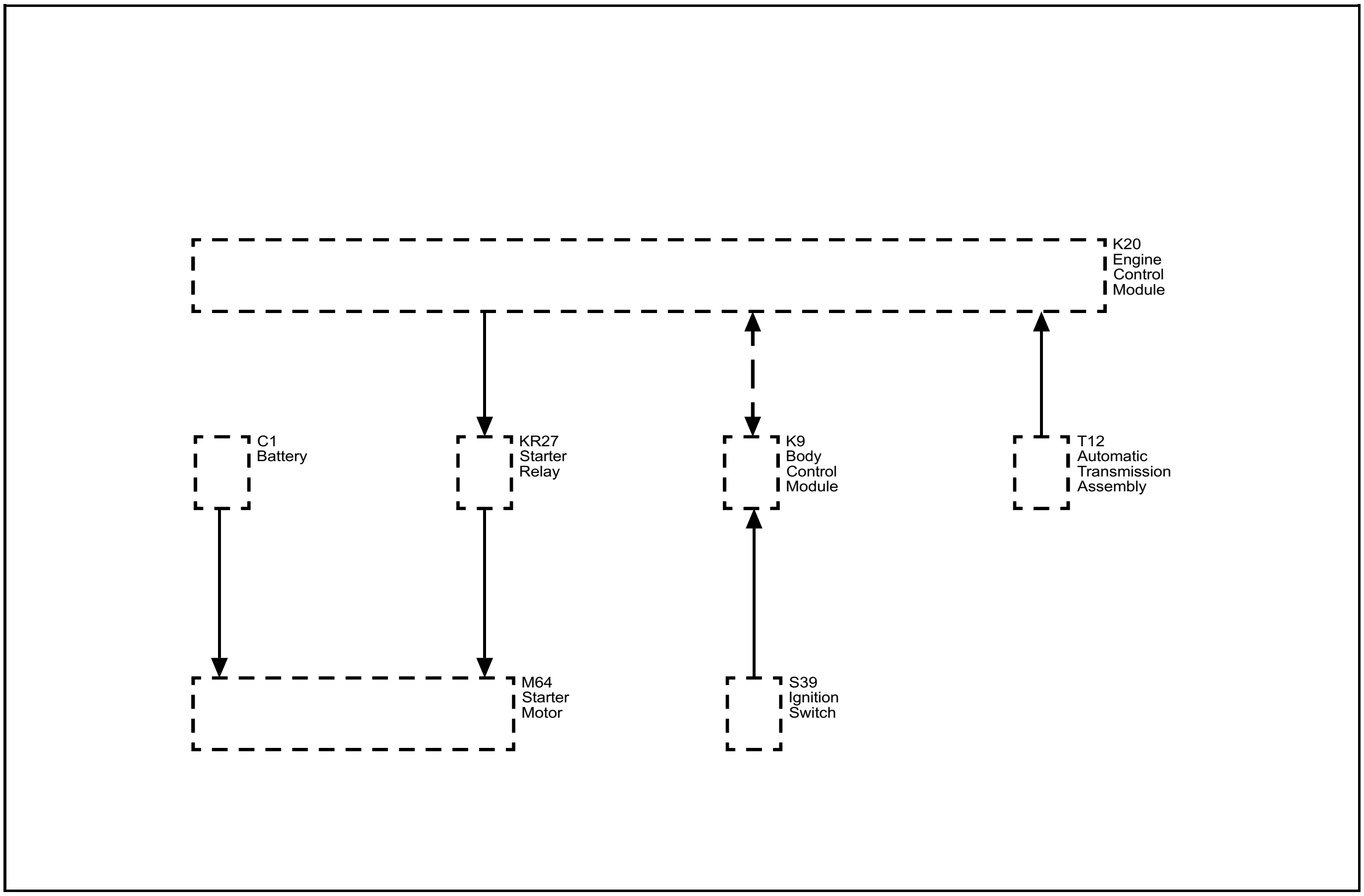
**Keyless Start**

When the Ignition mode switch is placed in the crank position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the crank position. The BCM then sends a serial data message to the engine control module (ECM) that crank has been requested. The ECM then verifies that the clutch is fully depressed or the automatic transmission is in Park/Neutral. If it is, the ECM then supplies 12 V to the control circuit of the starter relay. When this occurs, battery positive voltage is supplied through the switch side of the crank relay to the S terminal of the starter solenoid.

### Key Start

When the ignition switch is placed in the Start position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the Start position. The BCM then sends a message to the engine control module (ECM) notifying it that CRANK has been requested. The ECM verifies that the transmission is in Park or Neutral. If it is, the ECM then supplies 12 V to the control circuit of the crank relay. When this occurs, battery positive voltage is supplied through the switch side of the crank relay to the S terminal of the starter solenoid.

## Starting System Block Diagram


K20
Engine
Control
Module
C1
Battery
KR27
Starter
Relay
K9
Body
Control
Module
T12
Automatic
Transmission
Assembly
M64
Starter
Motor
S39
Ignition
Switch

3603725

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# Section 6

# HVAC

**Heating, Ventilation, and Air Conditioning** . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6-3
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  **Schematic and Routing Diagrams** . . . . . . . . . . . . . . 6-4
    HVAC Schematics . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6-5
  **Description and Operation** . . . . . . . . . . . . . . . . . . . . . . 6-9
    Manual HVAC Description and Operation . . . . . . . . 6-9

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# Heating, Ventilation, and Air Conditioning

## Description and Operation

### Heating and Air Conditioning System Description and Operation

### Engine Coolant

Engine coolant is the key element of the heating system. The engine thermostat controls the normal engine operating coolant temperature. Coolant pumped out of the engine enters the heater core through the inlet heater hose. The air flowing through the (Heating, Ventilation and Air Conditioning) HVAC module absorbs the heat of the coolant flowing through the heater core. The coolant then exits the heater core through the heater outlet hose and returns back to the engine block.

### Auxiliary Electric Heater

Some Vehicles come with an auxiliary electric heater. This 12V electrically powered heating element is positioned directly behind the regular coolant flow based heater core in the HVAC case. All airflow goes through the regular heater core first, and then through the auxiliary electric heater. The auxiliary electric heater is active when the outside ambient temperature is below **8°C (46°F)** , the coolant temperature is below **75°C (167°F)** , and the temperature air mix door is near the full hot position.

### A/C Cycle

Refrigerant is the key element in an air conditioning system. R-134a is presently the only approved refrigerant for this vehicle. R-134a is a very low temperature gas that can transfer the undesirable heat from the passenger compartment to the outside air.

The (Air Conditioning) A/C compressor is belt driven and operates when the magnetic clutch is engaged. The compressor builds pressure in the A/C system. Compressing the refrigerant also adds heat to the refrigerant. The refrigerant is discharged from the compressor through the discharge hose, and forced to flow to the condenser and then through the balance of the A/C system. The A/C system is mechanically protected with the use of a high pressure relief valve.

If the high pressure A/C switch were to fail or if the refrigerant system becomes restricted and refrigerant pressure continued to rise, the high pressure relief will pop open and release refrigerant from the system.

Compressed refrigerant enters the condenser in a high temperature, high pressure vapor state. As the refrigerant flows through the condenser, the heat of the refrigerant is transferred to the ambient air passing through the condenser. Cooling the refrigerant causes the refrigerant to condense and change from a vapor to a liquid state.

The condenser is located in front of the radiator for maximum heat transfer. The condenser is made of aluminum tubing and aluminum cooling fins, which allows rapid heat transfer for the refrigerant. The semi-cooled liquid refrigerant exits the condenser and flows through the liquid line, to the (Thermal Expansion Valve) TXV.

The TXV is located at the evaporator inlet. The TXV is the dividing point for the high and the low pressure sides of the A/C system. As the refrigerant passes through the TXV, the refrigerant is lowered. Due to the pressure differential on the liquid refrigerant, the refrigerant will begin to boil at the TXV. The TXV also meters the amount of liquid refrigerant that can flow into the evaporator.

Refrigerant exiting the TXV flows into the evaporator core in a low pressure, liquid state. Ambient air is drawn through the HVAC module and passes through the evaporator core. Warm and moist air will cause the liquid refrigerant to boil inside the evaporator core.

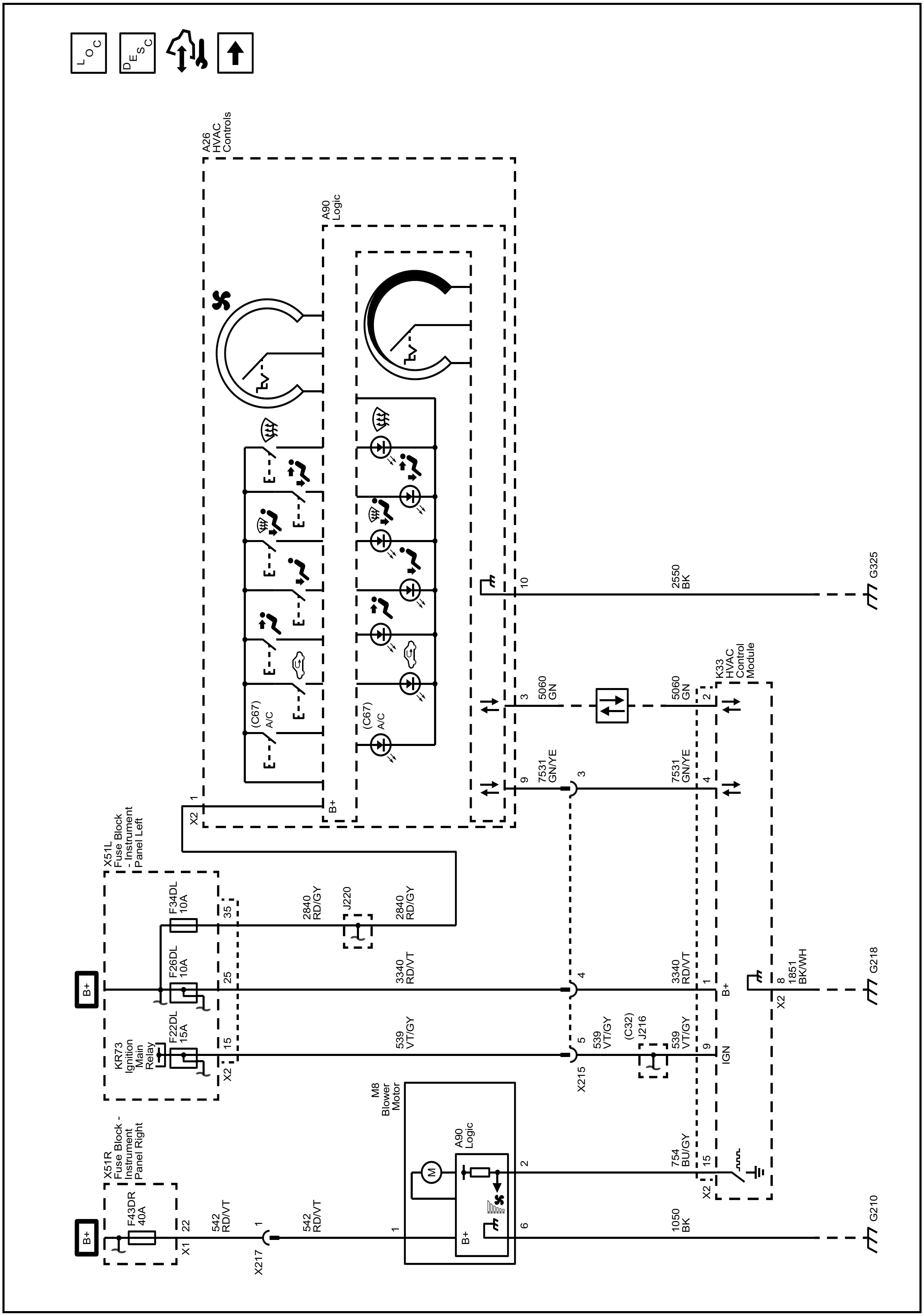
The boiling refrigerant absorbs heat from the ambient air and draws moisture onto the evaporator. The refrigerant exits the evaporator through the suction line and back to the compressor, in a vapor state. This completes the A/C cycle of heat removal. At the compressor, the refrigerant is compressed again and the cycle of heat removal is repeated.

The conditioned air is distributed through the HVAC module for passenger comfort. The moisture removed from the passenger compartment will also change form, or condense, and is discharged from the HVAC module as water.

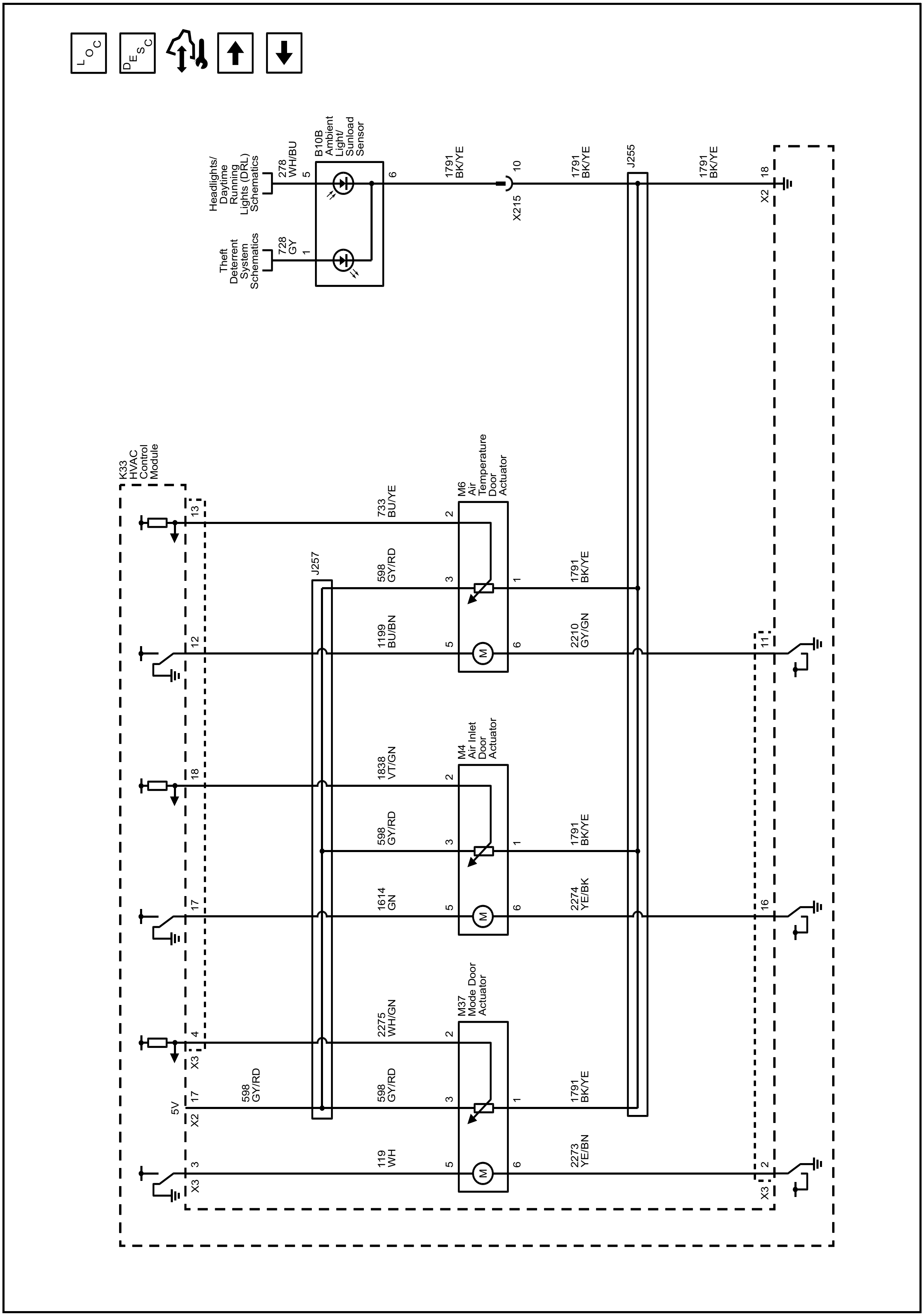
# HVAC - Manual

## Schematic and Routing Diagrams

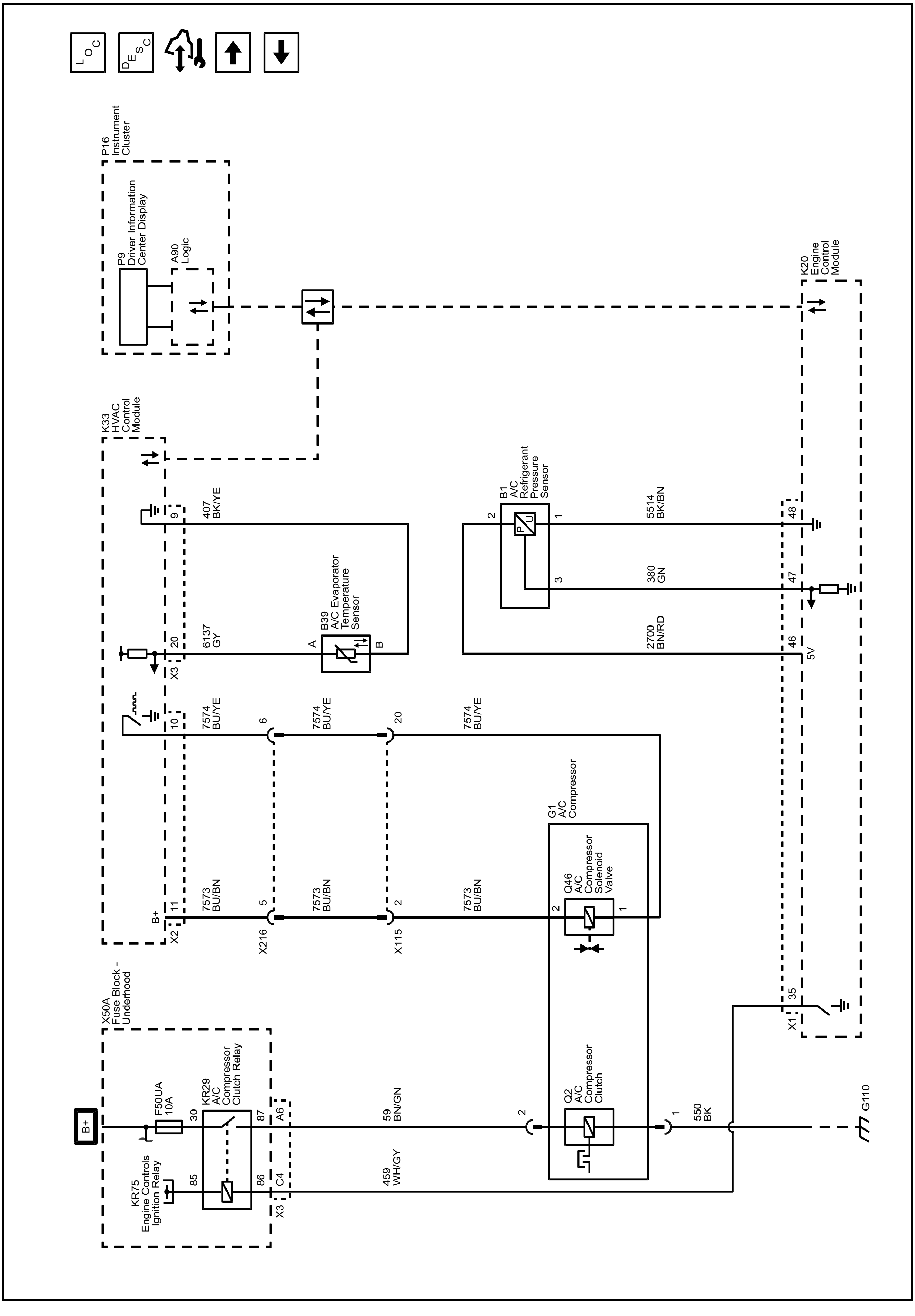
## HVAC Schematics (Power, Ground, Serial Data and Controls)


4914819
A26
HVAC
Controls
A90
Logic
(C67)
A/C
B+
X2
1
3
5060
GN
9
7531
GN/YE
10
2550
BK
G325
K33
HVAC
Control
Module
2
4
X51L
Fuse Block
- Instrument
Panel Left
F34DL
10A
35
2840
RD/GY
J220
F26DL
10A
25
3340
RD/VT
4
1
B+
8
1851
BK/WH
G218
KR73
Ignition
Main
Relay
F22DL
15A
15
539
VT/GY
5
(C32)
J216
IGN
X215
M8
Blower
Motor
M
754
BU/GY
15
6
1050
BK
G210
X51R
Fuse Block -
Instrument
Panel Right
F43DR
40A
22
X1
542
RD/VT
X217

## HVAC Schematics (Ambient Light/Sunload Sensor and Mode Doors)


4914820
Headlights/ Daytime Running Lights (DRL) Schematics
Theft Deterrent System Schematics
278 WH/BU
5
728 GY
1
B10B Ambient Light/ Sunload Sensor
6
1791 BK/YE
10
X215
1791 BK/YE
J255
1791 BK/YE
18
X2
K33 HVAC Control Module
13
733 BU/YE
2
M6 Air Temperature Door Actuator
J257
598 GY/RD
3
1
1791 BK/YE
12
1199 BU/BN
5
M
6
2210 GY/GN
11
18
1838 VT/GN
2
M4 Air Inlet Door Actuator
598 GY/RD
3
1
1791 BK/YE
17
1614 GN
5
M
6
2274 YE/BK
16
4
X3
2275 WH/GN
2
M37 Mode Door Actuator
5V
X2
17
598 GY/RD
598 GY/RD
3
1
1791 BK/YE
X3
3
119 WH
5
M
6
2273 YE/BN
2
X3

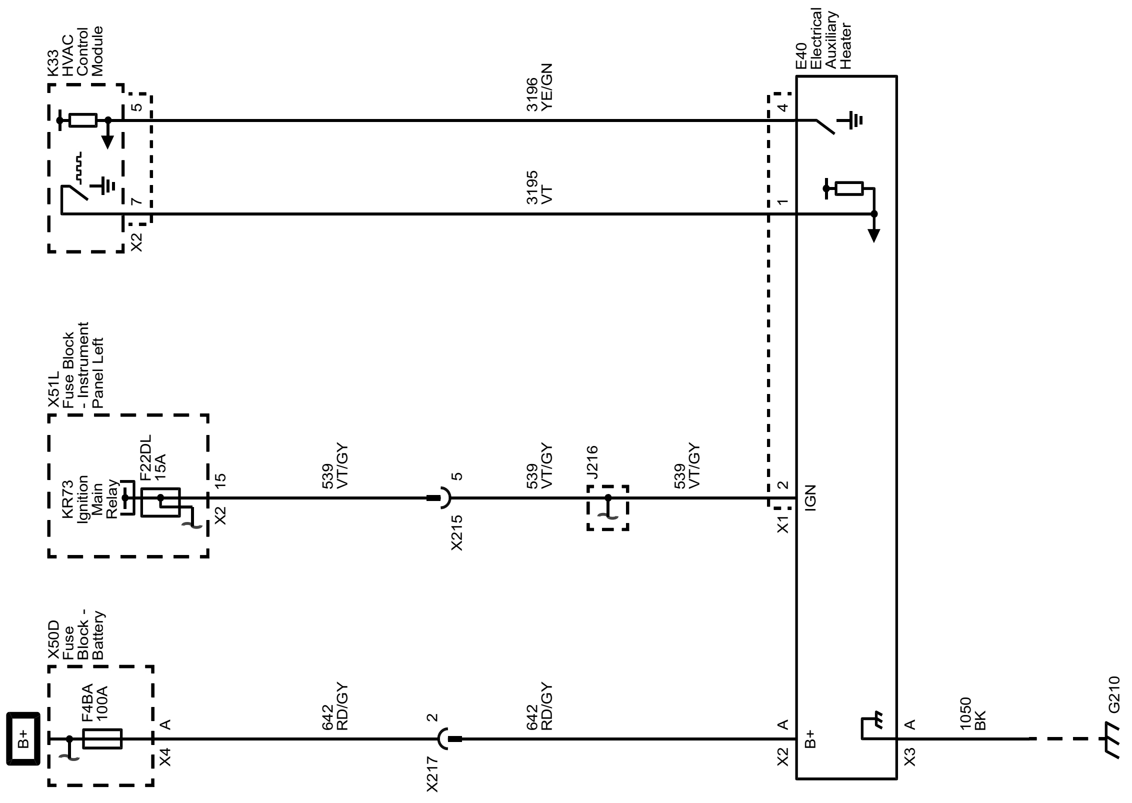
# HVAC Schematics (A/C Compressor Controls (C67))


LOC
DESC
P16 Instrument Cluster
P9 Driver Information Center Display
A90 Logic
K20 Engine Control Module
K33 HVAC Control Module
B1 A/C Refrigerant Pressure Sensor
B39 A/C Evaporator Temperature Sensor
G1 A/C Compressor
Q46 A/C Compressor Solenoid Valve
Q2 A/C Compressor Clutch
X50A Fuse Block - Underhood
KR29 A/C Compressor Clutch Relay
KR75 Engine Controls Ignition Relay
F50UA 10A
B+
X2
X3
X1
X216
X115
A6
C4
G110
5V
407 BK/YE
6137 GY
7574 BU/YE
7573 BU/BN
5514 BK/BN
380 GN
2700 BN/RD
59 BN/GN
459 WH/GY
550 BK
9
20
10
11
6
5
2
1
3
48
47
46
35
30
87
85
86
A
B
P
U

4914823

## HVAC Schematics (Auxiliary Heater (C32))

4914822


B+
X50D
Fuse
Block -
Battery
F4BA
100A
X4
A
642
RD/GY
X217
2
642
RD/GY
X51L
Fuse Block
- Instrument
Panel Left
KR73
Ignition
Main
Relay
F22DL
15A
X2
15
539
VT/GY
X215
5
539
VT/GY
J216
539
VT/GY
K33
HVAC
Control
Module
X2
7
5
3195
VT
3196
YE/GN
E40
Electrical
Auxiliary
Heater
4
1
X1
2
IGN
X2
A
B+
X3
A
1050
BK
G210

# Description and Operation

## Manual HVAC Description and Operation

The air temperature and the air delivery description and operation are divided into eight areas:

- HVAC Control Components
- Air Speed
- Air Delivery
- Heating and A/C Operation
- Recirculation Operation
- Engine Coolant and A/C System Refrigerant

## HVAC Control Components

### HVAC Control

The HVAC control contains all switches, buttons, and dials which are required to control the functions of the HVAC system and serve as interface between the operator and the HVAC control module. The selected values are passed to the HVAC control module via LIN-Bus.

### HVAC Control Module

The HVAC control module is a GMLAN device that interfaces between the operator and the HVAC system to maintain and control desired air temperature and air distribution settings. The battery positive voltage circuit provides power that the HVAC control module uses for keep alive memory. If the battery positive voltage circuit loses power, all HVAC DTCs and settings will be erased from keep alive memory. The body control module (BCM), which is the vehicle mode master, provides a device ON-Signal. The HVAC control module provides blower, air delivery mode and air temperature settings.

The HVAC control module supports the following features:

| Feature | Availability |
|---|---|
| Afterblow | Available if reprogrammed by the technician |
| Personalization | Yes |
| Actuator Calibration | Yes |

### Actuators

Doors in the HVAC case assembly are used to control air flow. The HVAC control module operates the doors through the use of actuators, with one actuator being used for each door. The system has the following air control doors and associated actuators: mode, temperature, and recirculation.

Each actuator used in the system is a 5-wire bi-directional electric motor that incorporate a feedback potentiometer. The five circuits are, low reference, 5 V reference, actuator position signal, and two control circuits. The control circuits use either a ground or 12 V value to coordinate the actuator movement. In order to move the actuator, the HVAC control module grounds one of the control circuits while providing the other with 12 V. The HVAC control module reverses the polarity of the control circuits to move the actuator in the opposite direction.

When the actuator shaft rotates, the potentiometer’s sliding contact changes the door position signal between 0–5 V. The HVAC control module converts the voltage signal to counts. The total range of the counts is 0–1024, with an operating range between 20–1000. The actual operating range of an actuator is determined during calibration. During calibration, the actuator is moved though its full range of travel and the module stores the minimum and maximum value. Based on the desired system operation, the module sets a commanded, or targeted, value for the actuators. The control circuits are operated to move the door to the required position, and the changing position signal is sent to the module. Once the actual position signal and the commanded value are the same, the module ceases operating the control circuits and the actuator (and door) remain in the desired position.

### Blower Motor

The blower motor speed control signal from the HVAC Control Module, battery positive and ground circuits enable the blower motor to operate. The blower motor control circuitry is integrated within the blower motor assembly. The HVAC control module provides a low side pulse width modulation (PWM) signal to the blower motor to request a specific motor speed. The blower motor translates the PWM signal and drives the motor accordingly.

### Evaporator Temperature Sensor

The evaporator temperature sensor is a 2-wire negative temperature co-efficient thermistor. The sensor operates within a temperature range of −40 to +85°C (−40 to +185°F). The sensor is installed at the evaporator and measures its temperature. If the temperature drops under 3°C (38°F), the compressor will be switched off in order to prevent evaporator icing.

### A/C Refrigerant Pressure Sensor

The A/C refrigerant pressure sensor is a 3-wire piezoelectric pressure transducer. A 5 V reference voltage, low reference, and signal circuits enable the sensor to operate. The A/C pressure signal can be between 0.2–4.8 V. When the A/C refrigerant pressure is low, the signal value is near 0 V. When the A/C refrigerant pressure is high, the signal value is near 5 V. The engine control module (ECM) converts the voltage signal to a pressure value. When pressure is too high or too low, the ECM will not allow the A/C compressor clutch to engage.

### A/C Compressor

The A/C compressor uses a conventional belt driven magnetic clutch to engage and mechanically turn the compressor. When the A/C switch is pressed, the HVAC control module sends an A/C request message to the ECM via serial data. If specific criteria is met, the ECM then grounds the A/C compressor clutch relay control circuit, which will switch the A/C compressor clutch relay. With the relay contacts closed, battery voltage is supplied to the permanently grounded A/C compressor clutch. The A/C compressor clutch will then be activated.

This A/C system utilizes a variable displacement solenoid valve to alter the amount of displacement created by the turning of the compressor. The HVAC control module provides both battery voltage and a pulse width modulated ground to the variable displacement solenoid valve. When the A/C switch is pressed, the HVAC control module grounds the variable displacement solenoid using a (PWM) signal in order to determine the amount of compressor displacement. The performance of the A/C compressor is regulated based on cooling load.

## Air Speed

The blower control switch is part of the HVAC controls. The selected value of the blower switch position is sent to the HVAC control module via LIN-Bus. The blower motor control circuitry is integrated within the blower motor assembly. The HVAC control module provides a low side pulse width modulation (PWM) signal to the blower motor to request a specific motor speed. The blower motor translates the PWM signal and drives the motor accordingly.

### Afterblow

Afterblow is a feature that dries the evaporator core by operating the blower motor after the engine is turned OFF. This reduces the amount of microbial growth that can create undesirable odors. The vehicle does not come equipped with the afterblow feature turned ON. If the afterblow feature is required due to an odor concern, it must be enabled using the scan tool Afterblow configuration function.

After the HVAC control module has been programmed for afterblow, the following conditions must be met for afterblow to operate:

- The engine has been turned OFF for at least 30 minutes.
- The ambient air temperature is at least 21°C (70°F).
- The A/C compressor operated for more than 2 minutes before shut down.
- The system voltage is at least 12 volts.

Once the above conditions have been met, the blower motor will perform the following sequence up to 5 times. This could last up to an hour:

1. The blower motor will be OFF for 7–11 minutes.
2. The blower motor will RUN for 25–30 seconds.

## Air Delivery

The HVAC control module controls the distribution of air by the use of recirculation and mode door actuator. The modes that may be selected are:

- Defrost
- Defog
- Panel
- Floor

The desired air distribution mode can be selected with the air distribution switches at the HVAC control. The HVAC control delivers the values to the HVAC control module via LIN-Bus. The HVAC control module controls the mode door actuator so that it drives the door to the calculated position. Depending on the position of the door, air is distributed through various ducts leading to the outlets in the dash. Turning the mode door to the defrost position, the HVAC control module will move the recirculation actuator to outside air, reducing window fogging. When defrost is selected, the blower motor will be activated, regardless of the coolant temperature. The HVAC control module enables a high volume of air delivered to the front defrost vents. A/C is available in all modes.

The rear window defogger does not affect the HVAC system.

## Heating and A/C Operation

The purpose of the heating and A/C system is to provide heated and cooled air to the interior of the vehicle. The A/C system will also remove humidity from the interior and reduce windshield fogging. Regardless of the temperature setting, the following can affect the rate that the HVAC system can achieve the desired temperature:

- Recirculation actuator setting
- Difference between inside and desired temperature
- Blower motor speed setting
- Mode setting

When the A/C switch is pressed, the HVAC controls sends a signal to the HVAC control module via LIN-Bus. The HVAC control module evaluates this signal and sends an A/C request signal to the ECM via CAN-Bus. The ECM checks all preconditions before releasing and if all conditions are met sends a release signal back to the HVAC control module. The ECM will provide a ground for the A/C compressor relay enabling it to close its internal contacts to send battery voltage to the A/C compressor clutch coil. The A/C compressor clutch will be activated. The performance of the A/C compressor is regulated via a variable A/C compressor solenoid valve. The HVAC control module supplies battery voltage to the A/C compressor. When the A/C switch is pressed, the HVAC control module provides a pulse width modulation (PWM) signal to the A/C compressor solenoid valve in order to command the performance of the A/C compressor.

The following conditions must be met in order to activate the A/C compressor:

- Battery voltage is between 9–18 V
- Engine coolant temperature is less than 124°C (255°F)
- Engine speed is greater than 600 RPM
- Engine speed is less than 5 500 RPM
- A/C high side pressure is between 269–2 929 kPa (39–425 PSI)
- Throttle position is less than 100%
- Evaporator temperature is greater than 3°C (38°F)
- ECM does not detect immoderate torque load
- ECM does not detect insufficient idle quality
- The ambient temperature is above 1°C (34°F)

The sensor information is used by the ECM to determine the following:

- The A/C high side pressure
- An A/C system load on the engine
- An immoderate A/C high side pressure
- The heat load at the A/C condenser

The air streams into the passenger compartment through the heater core and the evaporator core. The air temperature actuator drives the mixed air door to direct the airflow. If the interior temperature should be increased, the mixed air door is put into the position in which more air streams through the heater core. If the interior temperature should be decreased, the mixed air door is put into the position in which more air streams through the evaporator core.

## Recirculation Operation

The recirculation switch is integrated into the HVAC control. The selected recirculation setting is sent to the HVAC control module via LIN-Bus. The HVAC control module controls the air intake using the recirculation actuator. In recirculation mode the recirculation door is positioned to block outside air from entering and circulate the air within the vehicle. In outside air mode the recirculation door is positioned to route outside air into the vehicle.

Recirculation is only available if the defrost mode is not active. When the defrost mode is active, the recirculation actuator positions the recirculation door so that outside air is circulated to the windshield to reduce fogging.

## Engine Coolant and A/C System Refrigerant

For information on engine coolant, coolant flow, A/C refrigerant, and the A/C refrigerant cycle, refer to *Heating and Air Conditioning System Description and Operation on page 6-3*.

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# Section 7

# Power and Signal Distribution

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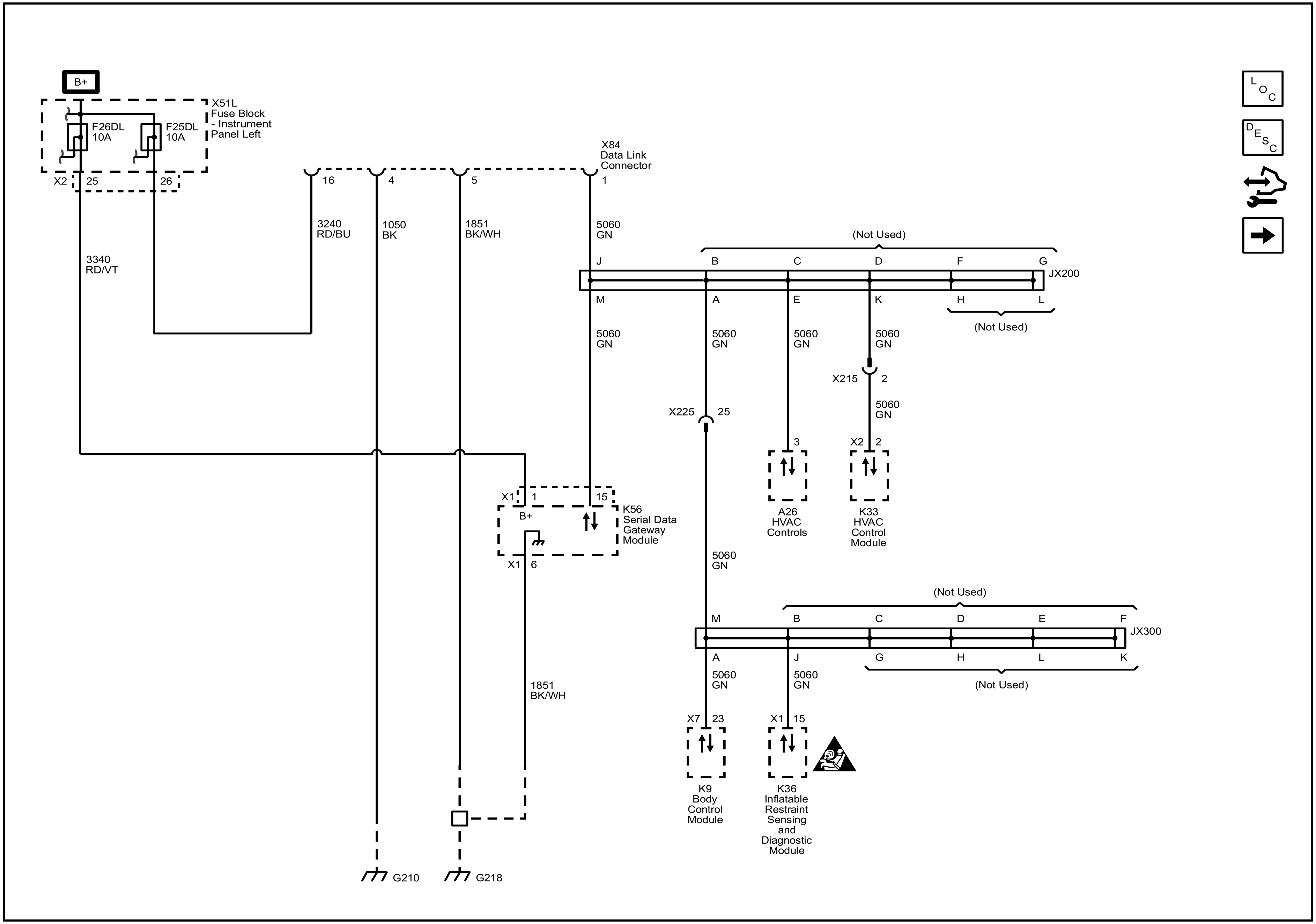
# Data Communications

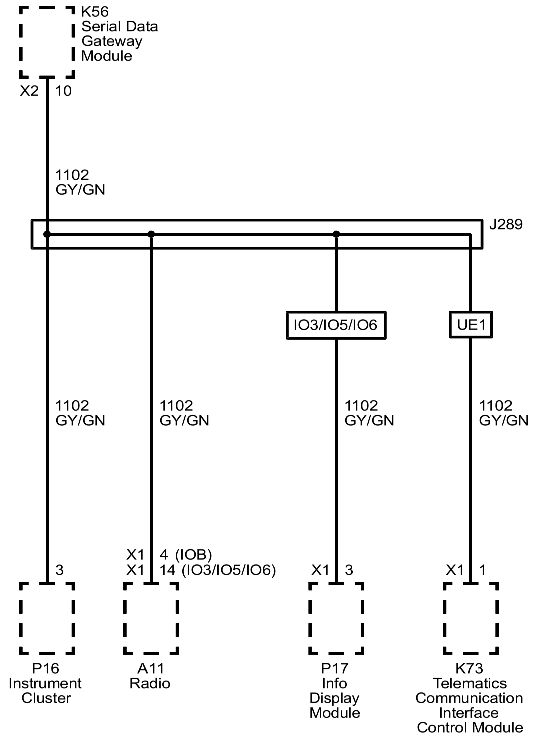
## Schematic and Routing Diagrams

## Data Communication Schematics (Data Link Power and Ground, and Low Speed GMLAN)


L O C
D E S C
B+
X51L
Fuse Block
- Instrument
Panel Left
F26DL
10A
F25DL
10A
X2
25
26
3340
RD/VT
X84
Data Link
Connector
16
4
5
1
3240
RD/BU
1050
BK
1851
BK/WH
5060
GN
(Not Used)
J
B
C
D
F
G
JX200
M
A
E
K
H
L
(Not Used)
5060
GN
5060
GN
5060
GN
5060
GN
X215
2
5060
GN
X225
25
3
X2
2
A26
HVAC
Controls
K33
HVAC
Control
Module
X1
1
15
B+
K56
Serial Data
Gateway
Module
X1
6
5060
GN
(Not Used)
M
B
C
D
E
F
JX300
A
J
G
H
L
K
(Not Used)
1851
BK/WH
5060
GN
5060
GN
X7
23
X1
15
K9
Body
Control
Module
K36
Inflatable
Restraint
Sensing
and
Diagnostic
Module
G210
G218

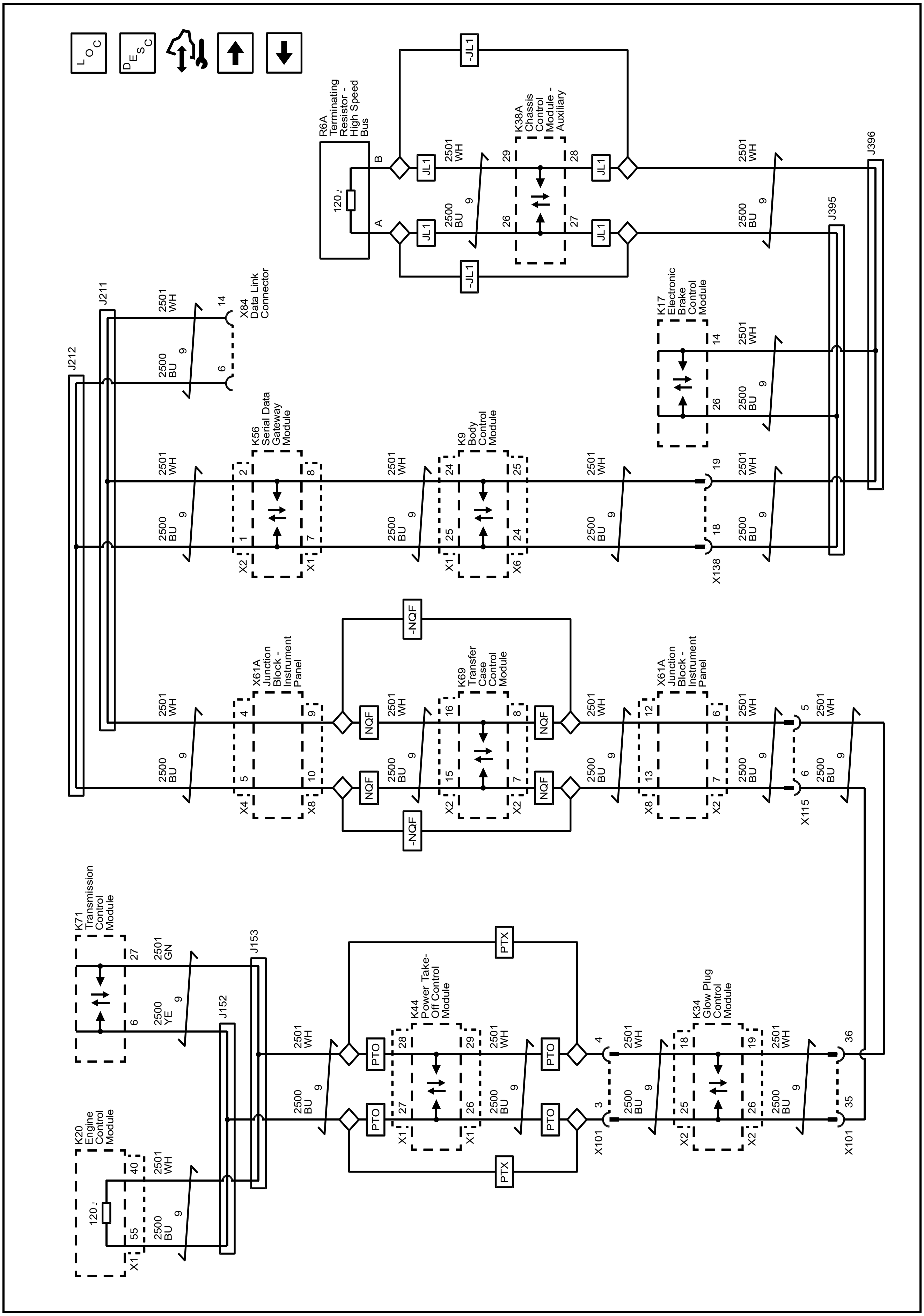
4914824

## Data Communication Schematics (Gateway Isolated Low Speed GMLAN)

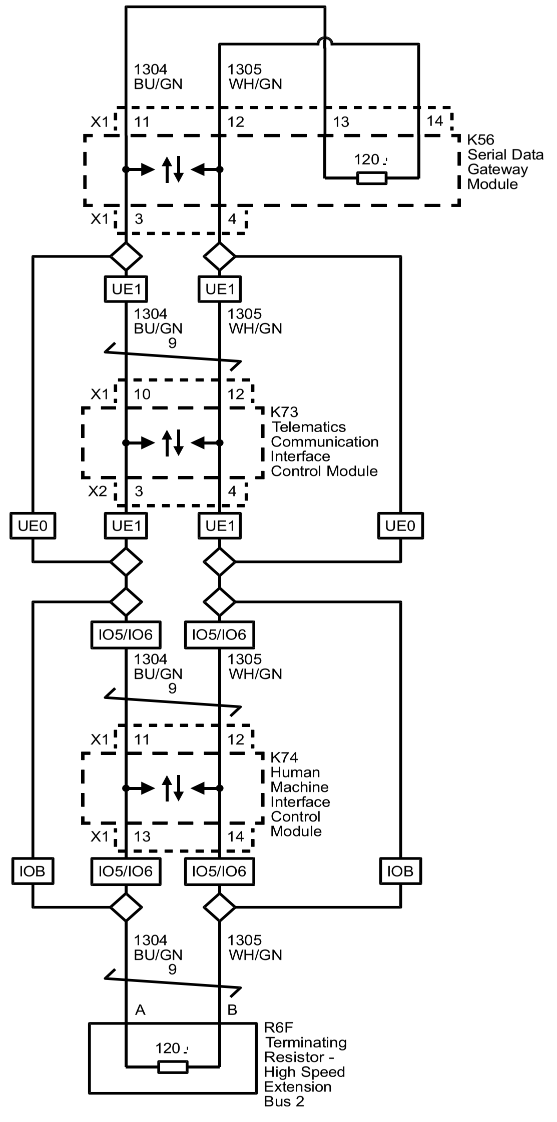

K56
Serial Data
Gateway
Module
X2 10
1102
GY/GN
J289
IO3/IO5/IO6
UE1
1102
GY/GN
1102
GY/GN
1102
GY/GN
1102
GY/GN
3
X1 4 (IOB)
X1 14 (IO3/IO5/IO6)
X1 3
X1 1
P16
Instrument
Cluster
A11
Radio
P17
Info
Display
Module
K73
Telematics
Communication
Interface
Control Module

4914825

## Data Communication Schematics (High Speed GMLAN)

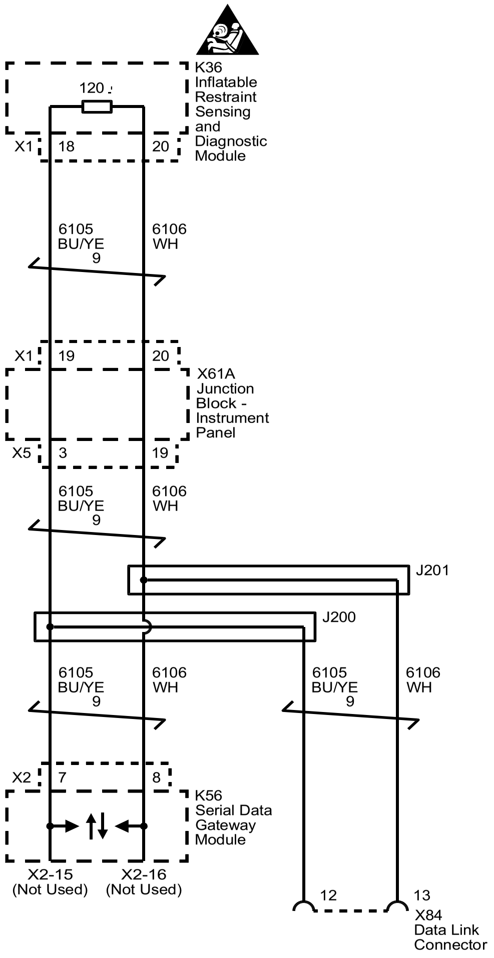

4914826
LOC
DESC
R6A Terminating Resistor - High Speed Bus
120Ω
A
B
-JL1
JL1
2500 BU 9
2501 WH
26
27
29
28
K38A Chassis Control Module - Auxiliary
J396
J395
J211
J212
14
6
X84 Data Link Connector
K17 Electronic Brake Control Module
K56 Serial Data Gateway Module
X2
X1
1
2
7
8
K9 Body Control Module
24
25
X6
X138
18
19
X61A Junction Block - Instrument Panel
X4
X8
4
5
9
10
-NQF
NQF
K69 Transfer Case Control Module
16
15
X2
12
13
X115
K71 Transmission Control Module
2501 GN
2500 YE 9
J153
J152
K20 Engine Control Module
40
55
K44 Power Take-Off Control Module
PTO
PTX
X101
K34 Glow Plug Control Module
36
35
3
4

# Data Communication Schematics (Gateway Isolated High Speed GMLAN)


1304
BU/GN
1305
WH/GN
X1
11
12
13
14
120 Ω
K56
Serial Data
Gateway
Module
X1
3
4
UE1
UE1
1304
BU/GN
9
1305
WH/GN
X1
10
12
K73
Telematics
Communication
Interface
Control Module
X2
3
4
UE0
UE1
UE1
UE0
IO5/IO6
IO5/IO6
1304
BU/GN
9
1305
WH/GN
X1
11
12
K74
Human
Machine
Interface
Control
Module
X1
13
14
IOB
IO5/IO6
IO5/IO6
IOB
1304
BU/GN
9
1305
WH/GN
A
B
R6F
Terminating
Resistor -
High Speed
Extension
Bus 2
120 Ω

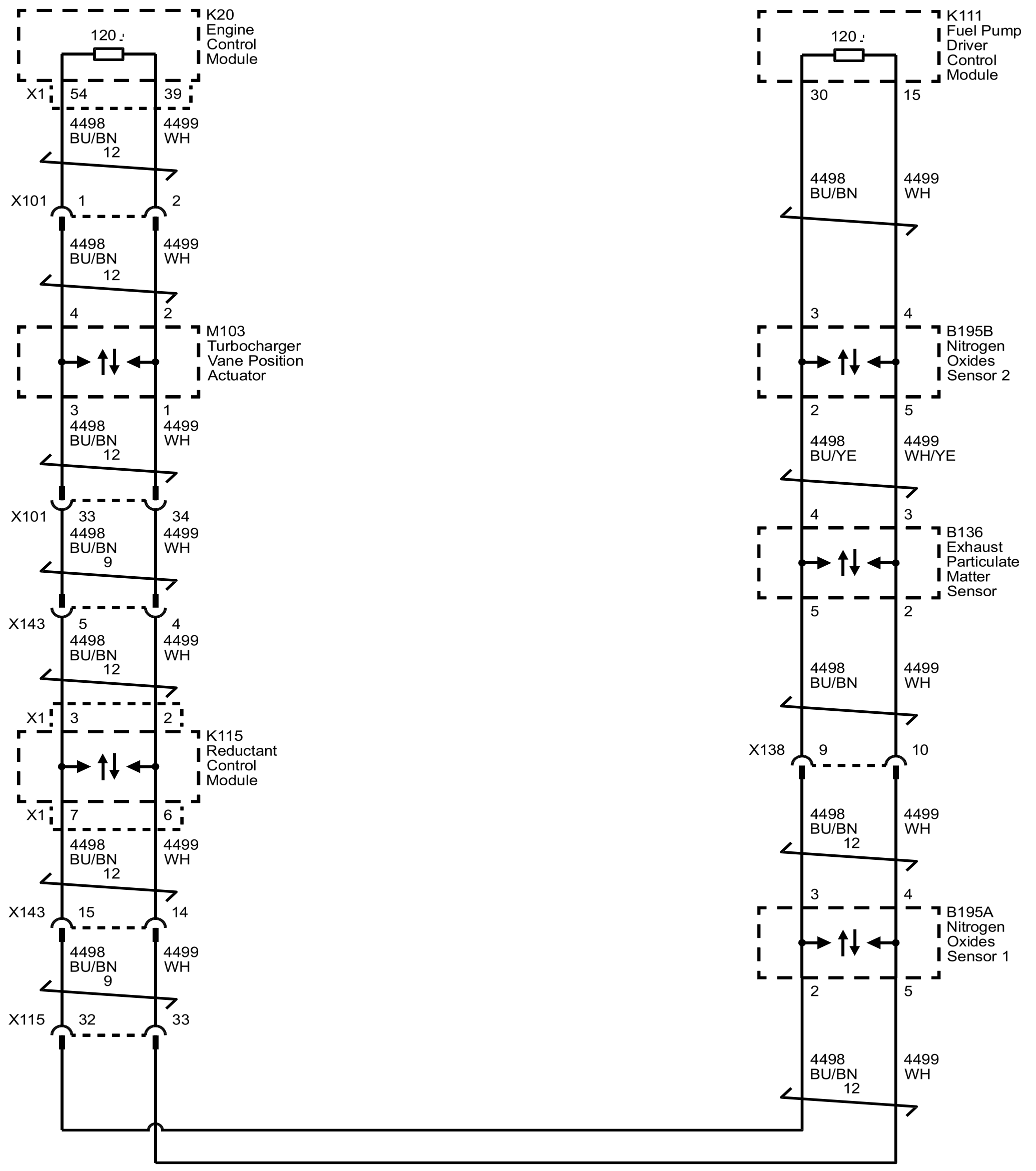
4914827

# Data Communication Schematics (Chassis Expansion Bus)


K36
Inflatable
Restraint
Sensing
and
Diagnostic
Module
120 Ω
X1
18
20
6105
BU/YE
9
6106
WH
X1
19
20
X61A
Junction
Block -
Instrument
Panel
X5
3
19
6105
BU/YE
9
6106
WH
J201
J200
6105
BU/YE
9
6106
WH
6105
BU/YE
9
6106
WH
X2
7
8
K56
Serial Data
Gateway
Module
X2-15
(Not Used)
X2-16
(Not Used)
12
13
X84
Data Link
Connector

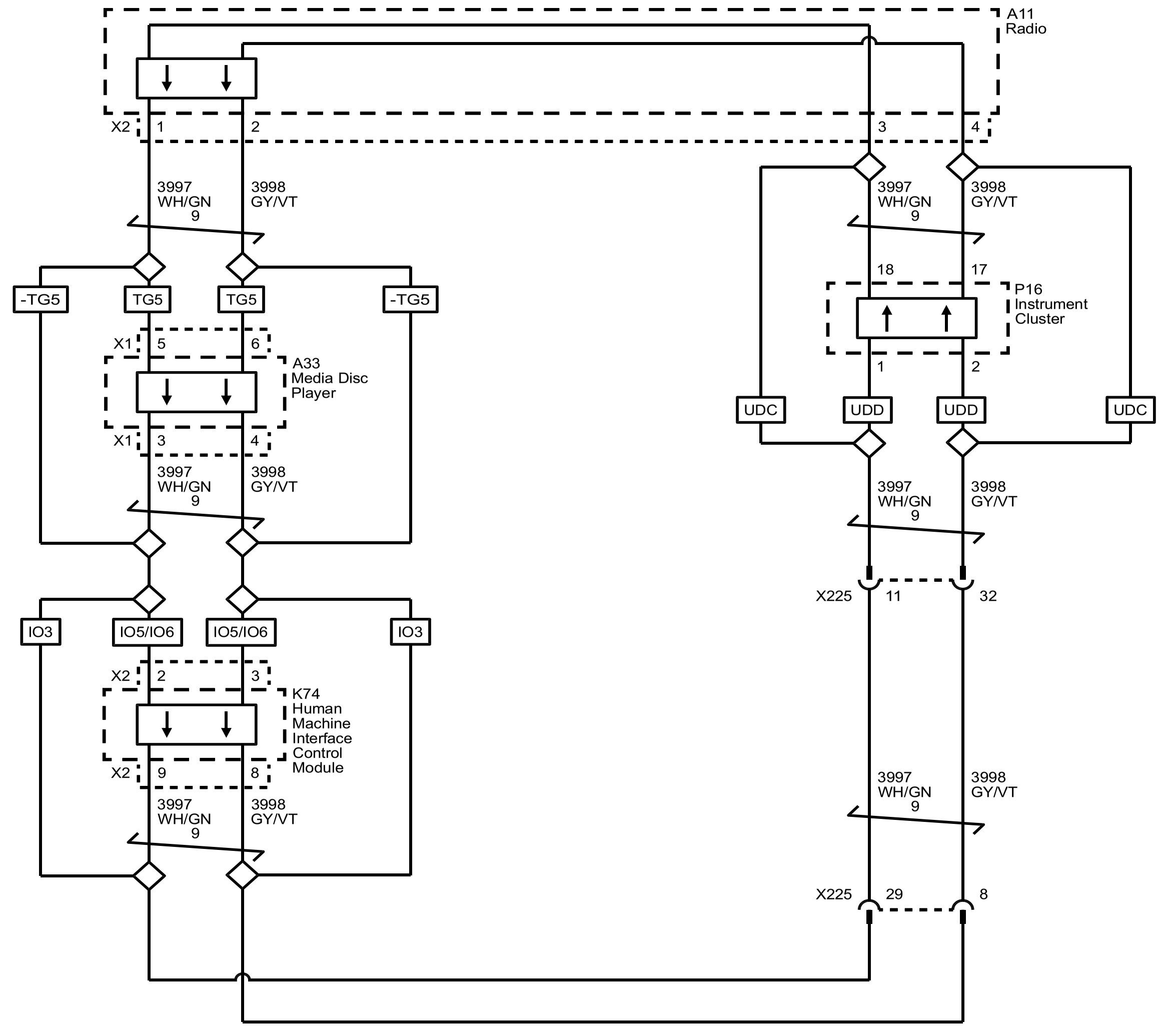
4914828

# Data Communication Schematics (Powertrain Expansion Bus)


K20
Engine
Control
Module
120 Ω
X1 54 39
4498 BU/BN 12
4499 WH
X101 1 2
4498 BU/BN 12
4499 WH
4 2
M103
Turbocharger
Vane Position
Actuator
3 1
4498 BU/BN 12
4499 WH
X101 33 34
4498 BU/BN 9
4499 WH
X143 5 4
4498 BU/BN 12
4499 WH
X1 3 2
K115
Reductant
Control
Module
X1 7 6
4498 BU/BN 12
4499 WH
X143 15 14
4498 BU/BN 9
4499 WH
X115 32 33
K111
Fuel Pump
Driver
Control
Module
120 Ω
30 15
4498 BU/BN
4499 WH
3 4
B195B
Nitrogen
Oxides
Sensor 2
2 5
4498 BU/YE
4499 WH/YE
4 3
B136
Exhaust
Particulate
Matter
Sensor
5 2
4498 BU/BN
4499 WH
X138 9 10
4498 BU/BN 12
4499 WH
3 4
B195A
Nitrogen
Oxides
Sensor 1
2 5
4498 BU/BN 12
4499 WH

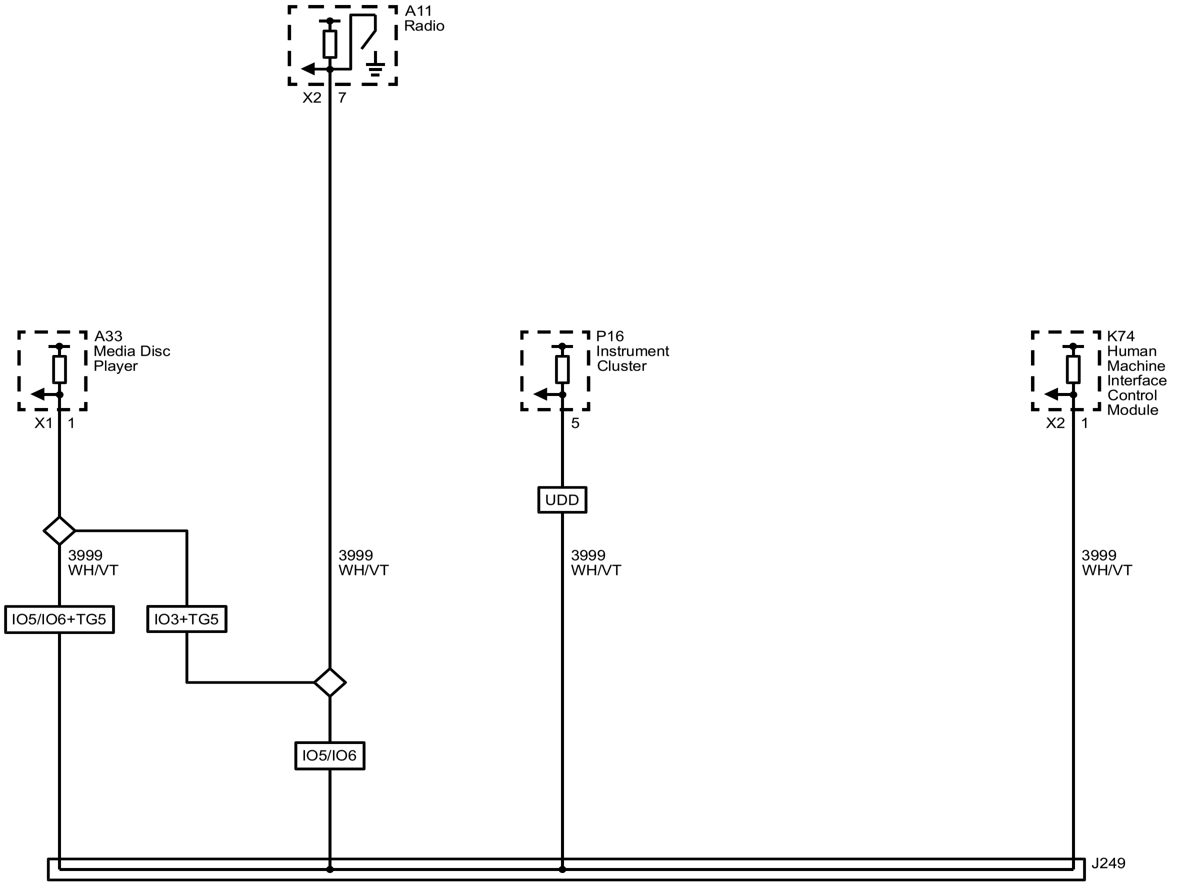
4914829

## Data Communication Schematics (MOST Communication Bus)


A11
Radio
X2
1
2
3
4
3997
WH/GN
9
3998
GY/VT
-TG5
TG5
TG5
-TG5
X1
5
6
A33
Media Disc
Player
X1
3
4
IO3
IO5/IO6
IO5/IO6
IO3
X2
2
3
K74
Human
Machine
Interface
Control
Module
X2
9
8
18
17
P16
Instrument
Cluster
1
2
UDC
UDD
UDD
UDC
X225
11
32
X225
29
8

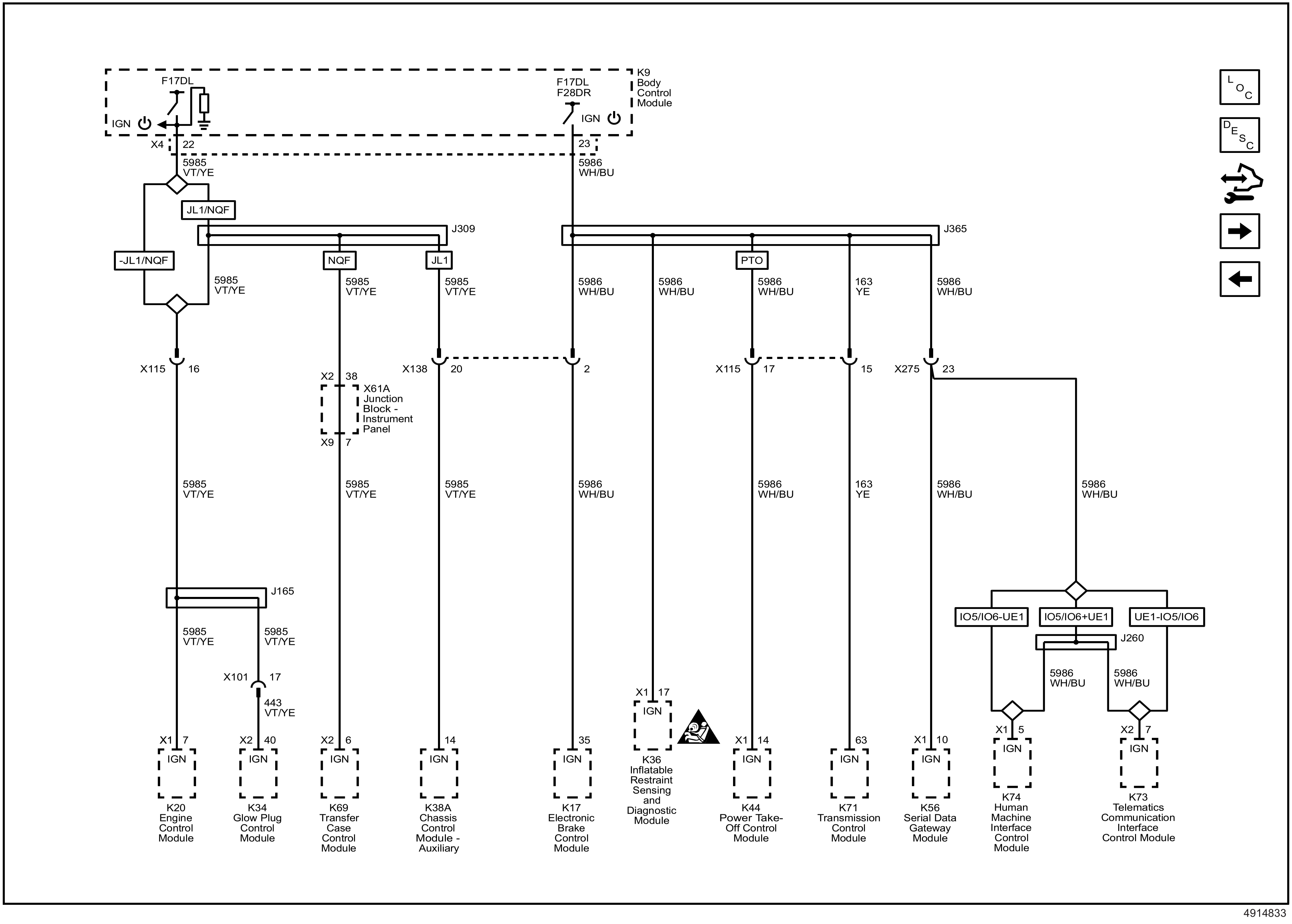
4914830

## Data Communication Schematics (MOST Communication Enable)

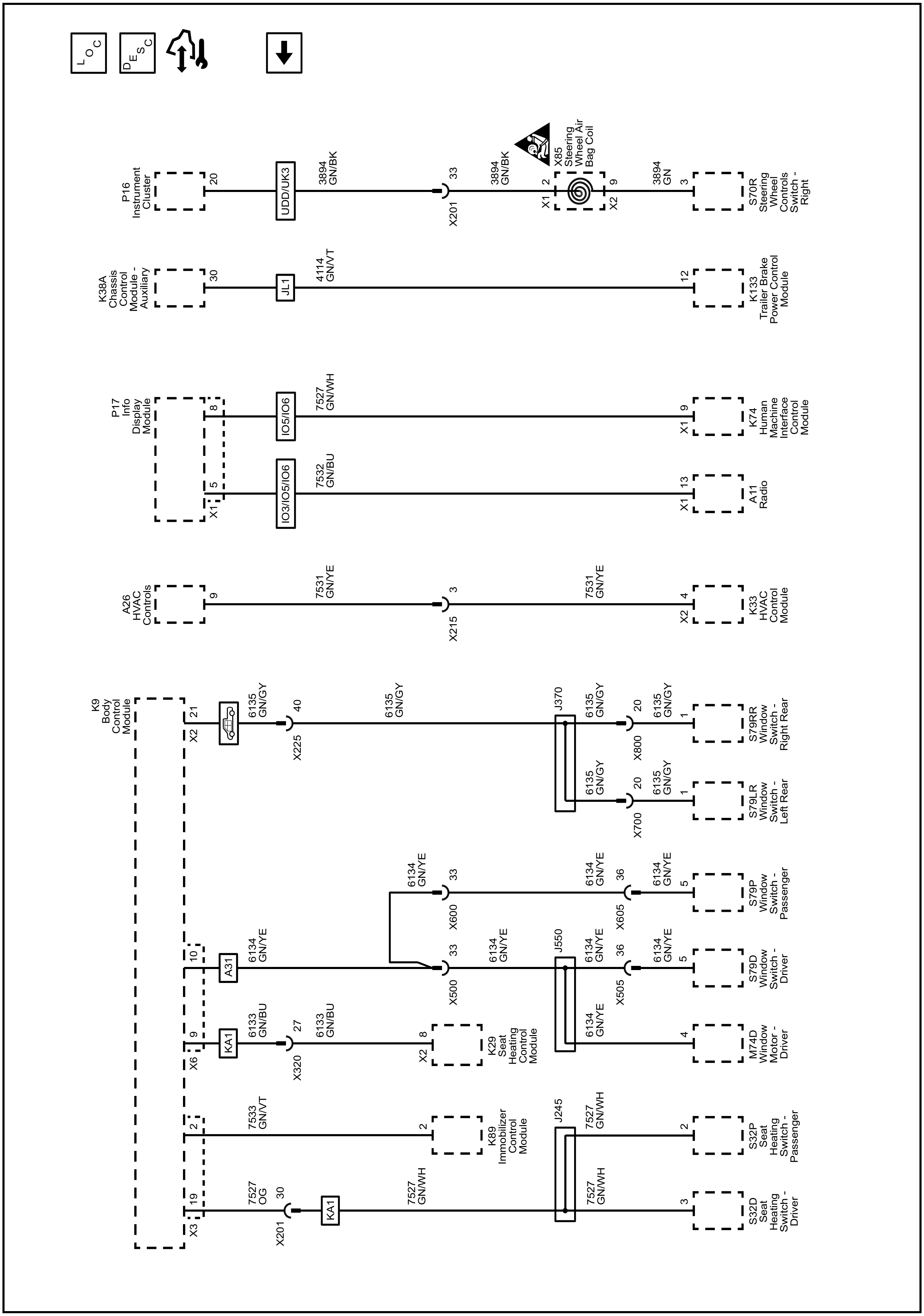

A11
Radio
X2 7
A33
Media Disc
Player
X1 1
P16
Instrument
Cluster
5
K74
Human
Machine
Interface
Control
Module
X2 1
UDD
3999
WH/VT
3999
WH/VT
3999
WH/VT
3999
WH/VT
IO5/IO6+TG5
IO3+TG5
IO5/IO6
J249

4914832

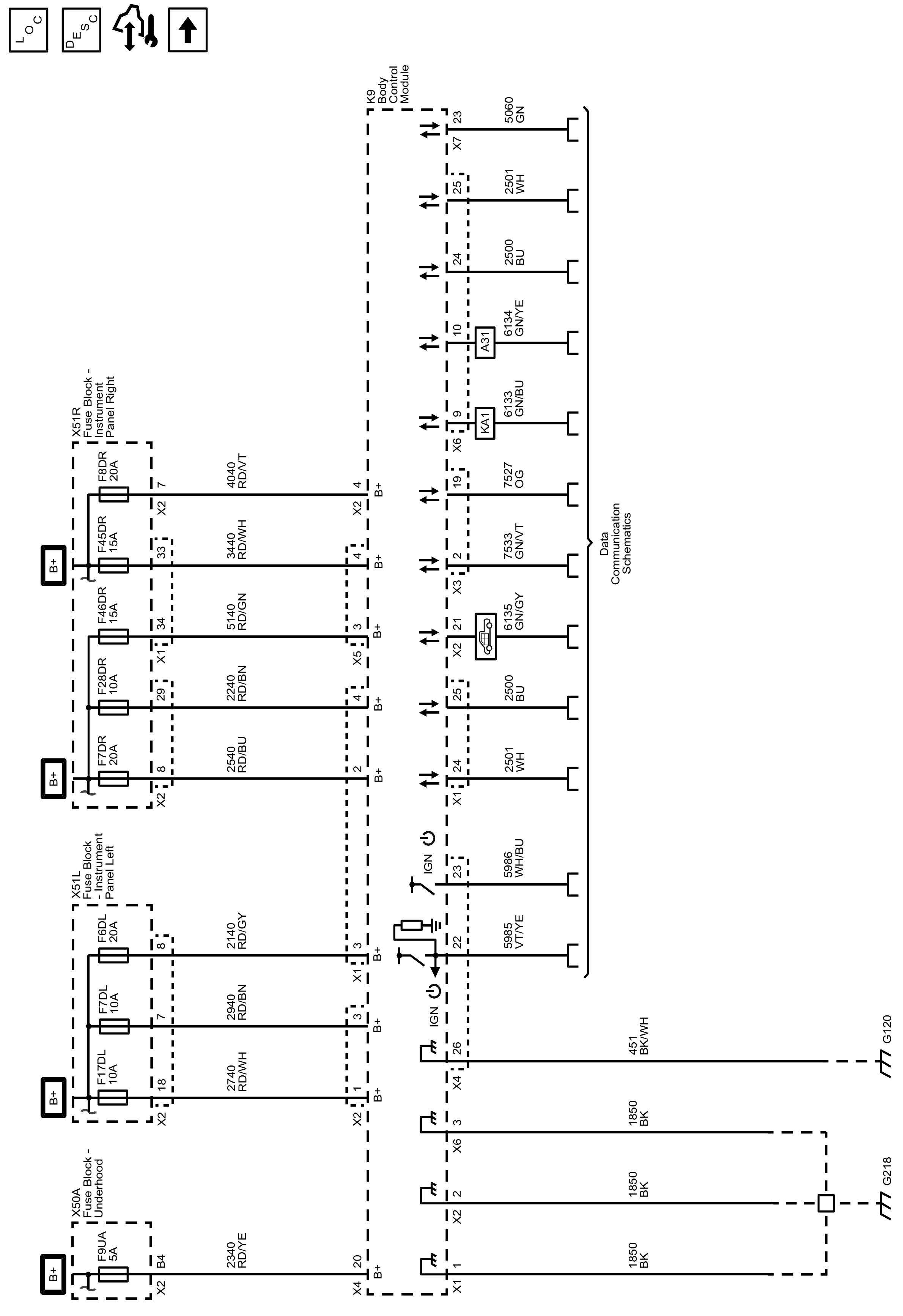
## Data Communication Schematics (Accessory Wakeup and Communications Enable)


K9
Body
Control
Module
F17DL
IGN
X4 22
F17DL
F28DR
IGN
23
5985
VT/YE
5986
WH/BU
JL1/NQF
-JL1/NQF
J309
NQF
JL1
J365
PTO
5985
VT/YE
5986
WH/BU
163
YE
X115 16
X2 38
X61A
Junction
Block -
Instrument
Panel
X9 7
X138 20
2
X115 17
15
X275 23
J165
X101 17
443
VT/YE
IO5/IO6-UE1
IO5/IO6+UE1
UE1-IO5/IO6
J260
X1 7
IGN
K20
Engine
Control
Module
X2 40
K34
Glow Plug
Control
Module
X2 6
K69
Transfer
Case
Control
Module
14
K38A
Chassis
Control
Module -
Auxiliary
35
K17
Electronic
Brake
Control
Module
X1 17
K36
Inflatable
Restraint
Sensing
and
Diagnostic
Module
X1 14
K44
Power Take-
Off Control
Module
63
K71
Transmission
Control
Module
X1 10
K56
Serial Data
Gateway
Module
X1 5
K74
Human
Machine
Interface
Control
Module
X2 7
K73
Telematics
Communication
Interface
Control Module
4914833

# Data Communication Schematics (Local Interconnect Network)


4914834
LOC
DESC
K9 Body Control Module
X2 21
6135 GN/GY
40
X225
6135 GN/GY
J370
6135 GN/GY
20
X800
6135 GN/GY
1
S79RR Window Switch - Right Rear
6135 GN/GY
20
X700
6135 GN/GY
1
S79LR Window Switch - Left Rear
10
A31
6134 GN/YE
33
X500
6134 GN/YE
33
X600
6134 GN/YE
J550
6134 GN/YE
36
X605
6134 GN/YE
5
S79P Window Switch - Passenger
6134 GN/YE
36
X505
6134 GN/YE
5
S79D Window Switch - Driver
6134 GN/YE
4
M74D Window Motor - Driver
X6 9
KA1
6133 GN/BU
27
X320
6133 GN/BU
X2 8
K29 Seat Heating Control Module
2
7533 GN/VT
2
K89 Immobilizer Control Module
X3 19
7527 OG
30
X201
KA1
7527 GN/WH
J245
7527 GN/WH
2
S32P Seat Heating Switch - Passenger
7527 GN/WH
3
S32D Seat Heating Switch - Driver
A26 HVAC Controls
9
7531 GN/YE
3
X215
7531 GN/YE
X2 4
K33 HVAC Control Module
P17 Info Display Module
X1 5
IO3/IO5/IO6
7532 GN/BU
X1 13
A11 Radio
8
IO5/IO6
7527 GN/WH
X1 9
K74 Human Machine Interface Control Module
K38A Chassis Control Module - Auxiliary
30
JL1
4114 GN/VT
12
K133 Trailer Brake Power Control Module
P16 Instrument Cluster
20
UDD/UK3
3894 GN/BK
33
X201
3894 GN/BK
X1 2
X85 Steering Wheel Air Bag Coil
X2 9
3894 GN
3
S70R Steering Wheel Controls Switch - Right

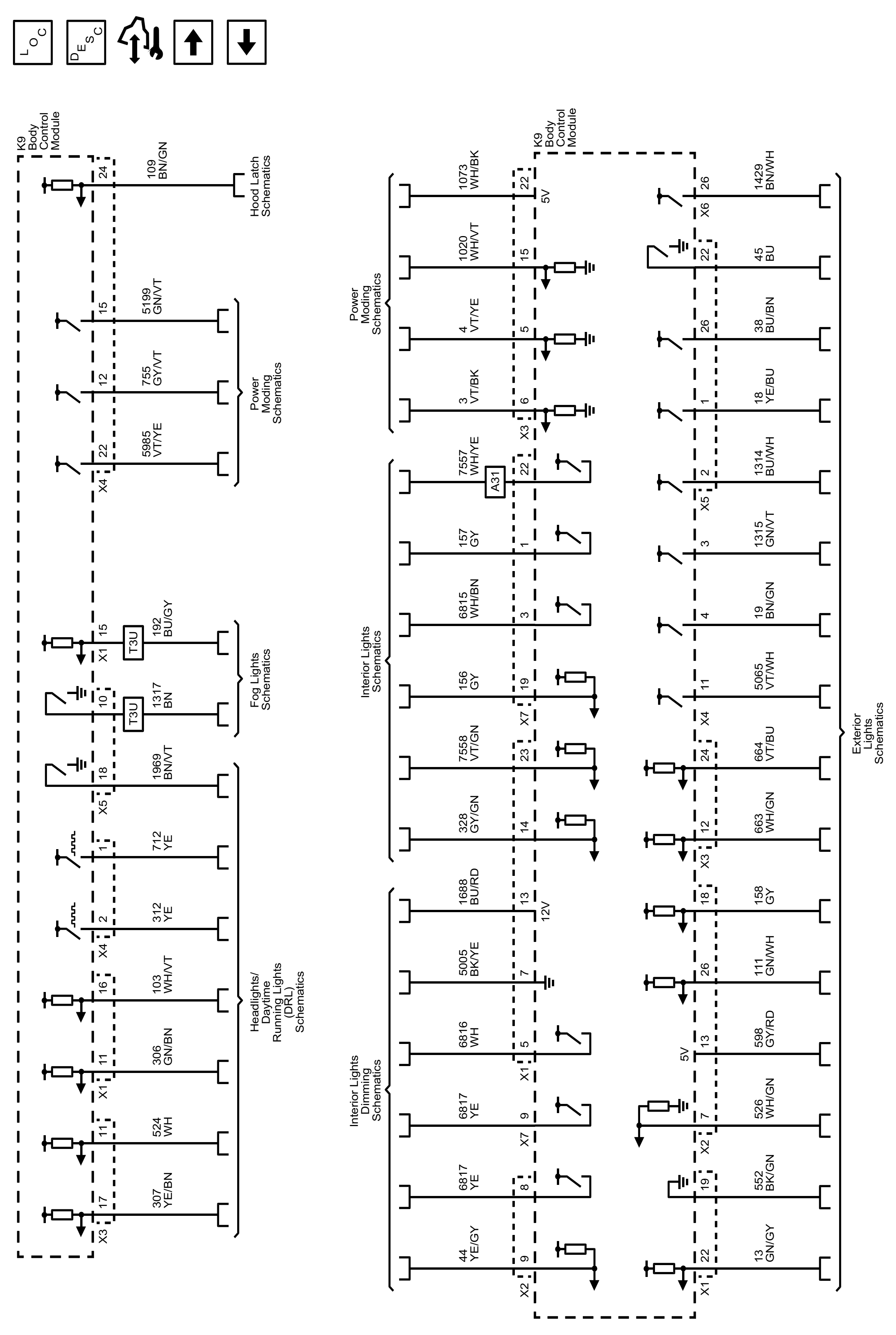
## Body Control System Schematics (Module Power, Ground and Serial Data)


LOC
DESC
X50A Fuse Block - Underhood
F9UA 5A
X2 B4
2340 RD/YE
X4 20 B+
X51L Fuse Block - Instrument Panel Left
F17DL 10A
F7DL 10A
F6DL 20A
X2 18
2740 RD/WH
7
2940 RD/BN
8
2140 RD/GY
X2 1 B+
3 B+
X1 3 B+
X51R Fuse Block - Instrument Panel Right
F7DR 20A
F28DR 10A
F46DR 15A
F45DR 15A
F8DR 20A
X2 8
2540 RD/BU
29
2240 RD/BN
X1 34
5140 RD/GN
33
3440 RD/WH
X2 7
4040 RD/VT
2 B+
4 B+
X5 3 B+
4 B+
X2 4 B+
B+
K9 Body Control Module
X1 1
1850 BK
X2 2
1850 BK
X6 3
1850 BK
G218
X4 26
451 BK/WH
G120
IGN
22
5985 VT/YE
23
5986 WH/BU
X1 24
2501 WH
25
2500 BU
X2 21
6135 GN/GY
X3 2
7533 GN/VT
19
7527 OG
X6 9
KA1
6133 GN/BU
10
A31
6134 GN/YE
24
2500 BU
25
2501 WH
X7 23
5060 GN
Data Communication Schematics

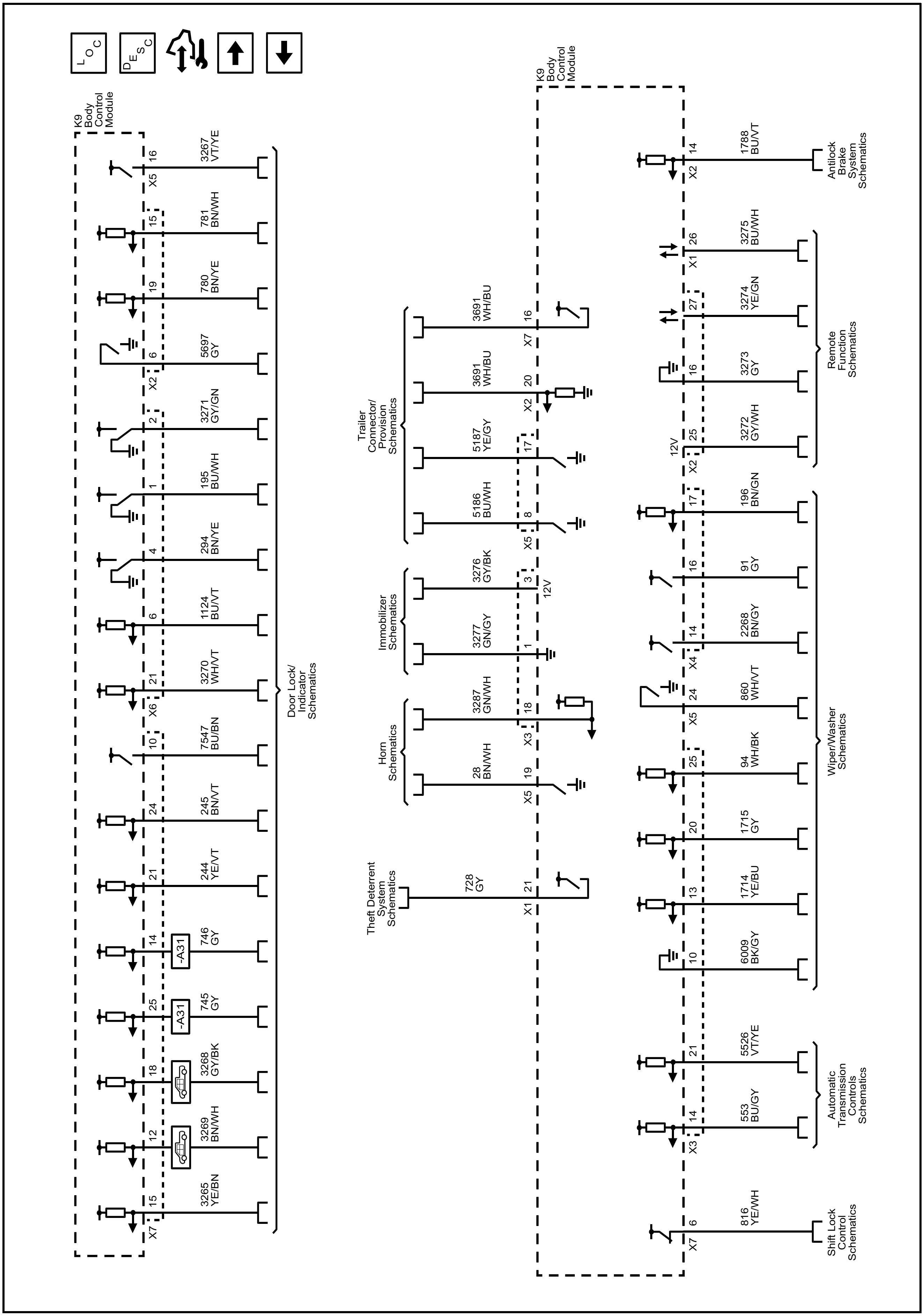
4914835

## Body Control System Schematics (Subsystem References (1 of 3))

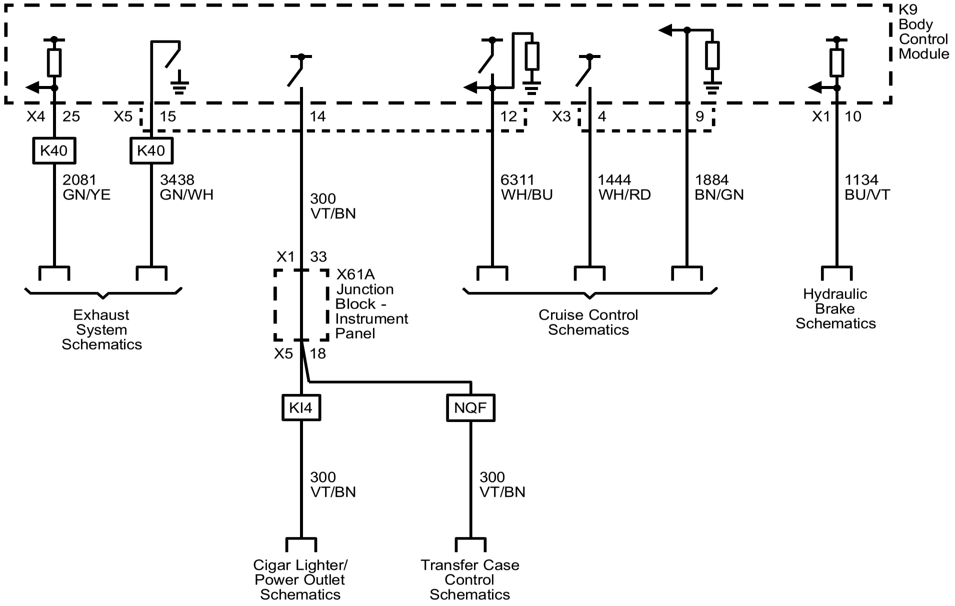
4914837


K9 Body Control Module
24
109 BN/GN
Hood Latch Schematics
X4
15
5199 GN/VT
12
755 GY/VT
22
5985 VT/YE
Power Moding Schematics
X1
15
T3U
192 BU/GY
10
T3U
1317 BN
Fog Lights Schematics
X5
18
1969 BN/VT
X4
1
712 YE
2
312 YE
16
103 WH/VT
X1
11
306 GN/BN
11
524 WH
X3
17
307 YE/BN
Headlights/ Daytime Running Lights (DRL) Schematics
Power Moding Schematics
22
5V
1073 WH/BK
15
1020 WH/VT
5
4 VT/YE
X3
6
3 VT/BK
Interior Lights Schematics
22
A31
7557 WH/YE
1
157 GY
3
6815 WH/BN
X7
19
156 GY
23
7558 VT/GN
14
328 GY/GN
13
12V
1688 BU/RD
7
5005 BK/YE
X1
5
6816 WH
Interior Lights Dimming Schematics
X7
9
6817 YE
8
6817 YE
X2
9
44 YE/GY
K9 Body Control Module
X6
26
1429 BN/WH
22
45 BU
26
38 BU/BN
1
18 YE/BU
X5
2
1314 BU/WH
3
1315 GN/VT
4
19 BN/GN
X4
11
5065 VT/WH
24
664 VT/BU
X3
12
663 WH/GN
18
158 GY
26
111 GN/WH
5V
13
598 GY/RD
X2
7
526 WH/GN
19
552 BK/GN
X1
22
13 GN/GY
Exterior Lights Schematics

## Body Control System Schematics (Subsystem References (2 of 3))


L O C
D E S C
4914839
K9 Body Control Module
X5 16 3267 VT/YE
15 781 BN/WH
19 780 BN/YE
X2 6 5697 GY
2 3271 GY/GN
1 195 BU/WH
4 294 BN/YE
6 1124 BU/VT
X6 21 3270 WH/VT
10 7547 BU/BN
24 245 BN/VT
21 244 YE/VT
14 -A31 746 GY
25 -A31 745 GY
18 3268 GY/BK
12 3269 BN/WH
X7 15 3265 YE/BN
Door Lock/ Indicator Schematics
Trailer Connector/ Provision Schematics
X7 16 3691 WH/BU
X2 20 3691 WH/BU
17 5187 YE/GY
X5 8 5186 BU/WH
Immobilizer Schematics
3 12V 3276 GY/BK
1 3277 GN/GY
Horn Schematics
X3 18 3287 GN/WH
X5 19 28 BN/WH
Theft Deterrent System Schematics
X1 21 728 GY
K9 Body Control Module
X2 14 1788 BU/VT
Antilock Brake System Schematics
X1 26 3275 BU/WH
27 3274 YE/GN
16 3273 GY
X2 25 12V 3272 GY/WH
Remote Function Schematics
17 196 BN/GN
16 91 GY
X4 14 2268 BN/GY
X5 24 860 WH/VT
25 94 WH/BK
20 1715 GY
13 1714 YE/BU
10 6009 BK/GY
Wiper/Washer Schematics
21 5526 VT/YE
X3 14 553 BU/GY
Automatic Transmission Controls Schematics
X7 6 816 YE/WH
Shift Lock Control Schematics

# Body Control System Schematics (Subsystem References (3 of 3))


K9
Body
Control
Module
X4 25
K40
2081
GN/YE
X5 15
K40
3438
GN/WH
Exhaust
System
Schematics
14
300
VT/BN
X1 33
X61A
Junction
Block -
Instrument
Panel
X5 18
KI4
300
VT/BN
Cigar Lighter/
Power Outlet
Schematics
NQF
300
VT/BN
Transfer Case
Control
Schematics
12
6311
WH/BU
X3 4
1444
WH/RD
9
1884
BN/GN
Cruise Control
Schematics
X1 10
1134
BU/VT
Hydraulic
Brake
Schematics

4914840

# Description and Operation

## Data Link Communications Description and Operation

**Note:** This is an overview of different serial data buses used by GM devices to communicate with each others. Use *Data Communication Schematics on page 7-4* to find out which serial data buses are configured for a specific vehicle.

### Circuit Description

There are many components in a vehicle that rely on information from other sources, transmit information to other sources, or both. Serial data communication networks provide a reliable, cost effective, way for various components of the vehicle to “talk” to one another and share information.

GM uses a number of different communication buses to insure the timely and efficient exchange of information between devices. When compared to each other, some of these buses are different in nature as far as speed, signal characteristics, and behavior. An example of this is the High Speed GMLAN and Low Speed GMLAN buses.

On the other hand, when other buses are compared to each other they have similar characteristics and simply operate in parallel. In this case they are used to group together components which have high interaction. Examples are the High Speed GMLAN, Powertrain Expansion, and Chassis Expansion buses. This allows them to communicate with each other on a bus with reduced message congestion insuring faster and the more timely exchange of information than if all vehicle devices were on a single bus.

The majority of information that exists within a given network generally stays local; however some information will have to be shared on other networks. Control modules designated as Gateway’s perform the function of transferring information between the various buses. A Gateway module is connected to at least 2 buses and will interact with each network according to its message strategy and transmission models.

GMLAN provides the capability for a receiving device to monitor message transmissions from other devices in order to determine if messages of interest are not being received. The primary purpose is to allow reasonable default values to be substituted for the information no longer being received. Additionally, a device may set a Diagnostic Trouble Code to indicate that the device it is expecting information from is no longer communicating.

### High Speed GMLAN Circuit Description

A High Speed GMLAN Bus is used where data needs to be exchanged at a high enough rate to minimize the delay between the occurrence of a change in sensor value and the reception of this information by a control device using the information to adjust vehicle system performance.

The High Speed GMLAN serial data network consists of two twisted wires. One signal circuit is identified as GMLAN-High and the other signal circuit is identified as GMLAN-Low. At each end of the data bus there is a 120 Ω termination resistor between the GMLAN-High and GMLAN-Low circuits.

Data symbols (1’s and 0’s) are transmitted sequentially at a rate of 500 Kbit/s. The data to be transmitted over the bus is represented by the voltage difference between the GMLAN-High signal voltage and the GMLAN-Low signal voltage.

When the two wire bus is at rest the GMLAN-High and GMLAN-Low signal circuits are not being driven and this represents a logic “1”. In this state both signal circuits are at the same voltage of 2.5 V. The differential voltage is approximately 0 V.

When a logic “0” is to be transmitted, the GMLAN-High signal circuit is driven higher to about 3.5 V and the GMLAN-Low circuit is driven lower to about 1.5 V. The differential voltage becomes approximately 2.0 (+/- 0.5) V.

### Chassis High Speed GMLAN Circuit Description

The GMLAN Chassis Expansion Bus is basically a copy of the High Speed GMLAN Bus except that its use is reserved for chassis components. This implementation splits message congestion between two parallel buses helping to insure timely message transmission and reception. Sometimes communication is required between the Chassis Expansion Bus and the primary High Speed GMLAN Bus. This is accomplished by using the K17 Electronic Brake Control Module (EBCM) as the Gateway module. Since the High Speed GMLAN Chassis Expansion Bus and primary High Speed GMLAN Bus operate in the same manner, the diagnostics for each are similar.

### Powertrain High Speed GMLAN Circuit Description

The GMLAN Powertrain Expansion Bus is basically a copy of the High Speed GMLAN Bus except that its use is reserved for Powertrain components. The bus is optional based upon feature content. Sometimes communication is required between the Powertrain Expansion Bus and the primary High Speed GMLAN Bus. This is accomplished by using the K20 Engine Control Module (ECM) as the Gateway module. Since the High Speed GMLAN Powertrain Expansion Bus and the primary High Speed GMLAN Bus operate in the same manner, the diagnostics for each are similar.

### Media Oriented Systems Transport (MOST) Circuit Description

The MOST Infotainment network is a dedicated high speed multimedia streaming data bus independent from GMLAN. The MOST bus will be configured in a physical hardwired loop with each device within the bus sends and receives data on an assigned MOST addresses in a set order. Each device on the MOST bus will be required to have twisted pair copper wires (2 transmit TX, 2 receive RX, and 1 electronic control line which is a 12 V wakeup signal line). The A11 Radio is the MOST Master and will monitor the bus for vehicle configuration, Infotainment data messages and errors on the bus. The MOST initialization consists of a short 100 ms low voltage pulse on the electronic control line (or MOST control line) connected to all devices contained on the MOST ring. This wakeup message once received by each device, will first respond with a generic device response. Once these initial responses on the MOST bus are reported successfully without error to the A11 Radio, the second data request will record the MOST device addresses, their functionality requirements and capabilities within. The A11 Radio will learn this information and also record the address node sequence on the MOST bus at this point. This node address list will now be stored within the A11 Radio as the MOST bus configuration (called “Last Working MOST ID of Node 1 – 9” on scan tool data display).

When MOST receive, transmit, or control line faults are detected, transmit/receive messages will not received as expected from the wakeup request. The A11 Radio and the K74 Human Machine Interface Control Module will then perform diagnostics to isolate these MOST faults. If the MOST control line is shorted low to 0 V for excess amount of time, the A11 Radio will set a U2098 DTC and K74 Human Machine Interface Control Module will set a U0029 02 DTC. At this point the MOST bus will be unable to communicate until the shorted MOST control line is repaired.

Once the shorted MOST control line diagnostics pass, the A11 Radio will attempt to resend the initial short pulse attempts up to 3 times on the MOST control line. If the expected responses are not received, the A11 Radio continues into a failure mode setting a U0028 DTC and will continue on to send one 300 ms long pulse, which will enable the furthest upstream transmitting device to become the surrogate MOST Master in this MOST fault/diagnostic mode. When the A11 Radio receives this new MOST Master identity, the surrogate MOST master device can be identified based on scan tool data parameter “Surrogate MOST Master Node Upstream Position”. The scan tool should be used to determine the MOST bus configuration and direction by utilizing the “Last Working MOST ID of Node 1 – 9” parameters from the A11 Radio data display. When a fault is present, it will indicate the newly enabled “Surrogate MOST Master Node Upstream Position” from the A11 Radio. This will assist in determining where the MOST bus/control is at fault. The MOST device upstream from the surrogate MOST master device, transmit, receive, or control lines will be the suspect areas for diagnostics at this point. These faults can be associated with any of the MOST transmit, receive, or control line twisted copper wires or possibly an internal device fault.

The K74 Human Machine Interface Control Module will set a U0029 00 DTC when it diagnoses a MOST bus not communicating properly after one attempt. When the DTC U0029 00 is set by the K74 Human Machine Interface Control Module without the corresponding DTC U0028 from the A11 Radio, it will be an indication of an intermittent wiring/device condition.

## Low Speed GMLAN Circuit Description

Low Speed GMLAN Bus is used in applications where a high data rate is not required which allows for the use of less complex components. It is typically used for operator controlled functions where the response time requirements are slower than those required for dynamic vehicle control.

The Low Speed GMLAN Serial Data Network consists of a single wire, ground referenced bus with high side voltage drive. During on road vehicle operation data symbols (1’s and 0’s) are transmitted sequentially at the normal rate of 33.3 Kbit/s. For component programming only, a special high speed data mode of 83.3 Kbit/s may be used.

Unlike the high speed dual wire networks, the single wire low speed network does not use terminating resistors at either end of the network.

The data symbols to be transmitted over the bus are represented by different voltage signals on the bus. When the Low Speed GMLAN Bus is at rest and is not being driven, there is a low signal voltage of approximately 0.2 V. This represents a logic “1”. When a logic “0” is to be transmitted, the signal voltage is driven higher to around 4.0 V or higher.

## Local Interconnect Network (LIN) Circuit Description

The Local Interconnect Network (LIN) Bus consists of a single wire with a transmission rate of 10.417 Kbit/s. This bus is used to exchange information between a master control module and other smart devices which provide supporting functionality. This type of configuration does not require the capacity or speed of either a High Speed GMLAN Bus or Low Speed GMLAN Bus and is thus relatively simpler.

The data symbols (1’s and 0’s) to be transmitted are represented by different voltage levels on the communication bus. When the LIN Bus is at rest and is not being driven, the signal is in a high voltage state of approximately Vbatt. This represents a logic “1”. When a logic “0” is to be transmitted, the signal voltage is driven low to about ground (0.0 V).

## Communication Enable Circuit Description

Devices on High Speed GMLAN Bus enable or disable communication based on the voltage level of the communication enable circuit. When the circuit voltage is high (around 12 V), communications are enabled. When the circuit is low, communications are disabled.

## Data Link Connector (DLC)

The X84 Data Link Connector (DLC) is a standardized 16-cavity connector. Connector design and location is dictated by an industry wide standard, and is required to provide the following:

- Terminal 1 Low speed GMLAN communications terminal
- Terminal 4 Scan tool power ground terminal
- Terminal 5 Common signal ground terminal
- Terminal 6 High speed GMLAN serial data bus (+) terminal
- Terminal 12 Chassis high speed GMLAN serial bus (+) terminal
- Terminal 13 Chassis high speed GMLAN serial bus (-) terminal
- Terminal 14 High speed GMLAN serial data bus (-) terminal
- Terminal 16 Scan tool power, battery positive voltage terminal

## Serial Data Reference

The scan tool communicates over the various buses on the vehicle. When a scan tool is installed on a vehicle, the scan tool will try to communicate with every device that could be optioned into the vehicle. If an option is not installed on the vehicle, the scan tool will display No Comm (or Not Connected) for that optional device. In order to avert misdiagnoses of No Communication with a specific device, refer to *Data Link References* in the Service Manual for a list of devices and the buses they communicate with. Use schematics and specific vehicle build RPO codes to determine optional devices.

## Serial Data Gateway Module Description and Operation

The K56 Serial Data Gateway Module is used to handle communications between multiple GMLAN busses and functions as a gateway to isolate the secure networks from the unsecured networks. It was created to mitigate bus loading to support cyber security and new active/advanced safety features like Limited Ability Autonomous Driving and Enhanced Collision Avoidance (if equipped). The K56 Serial Data Gateway Module is used as a frame-to-frame gateway for all functional messages.

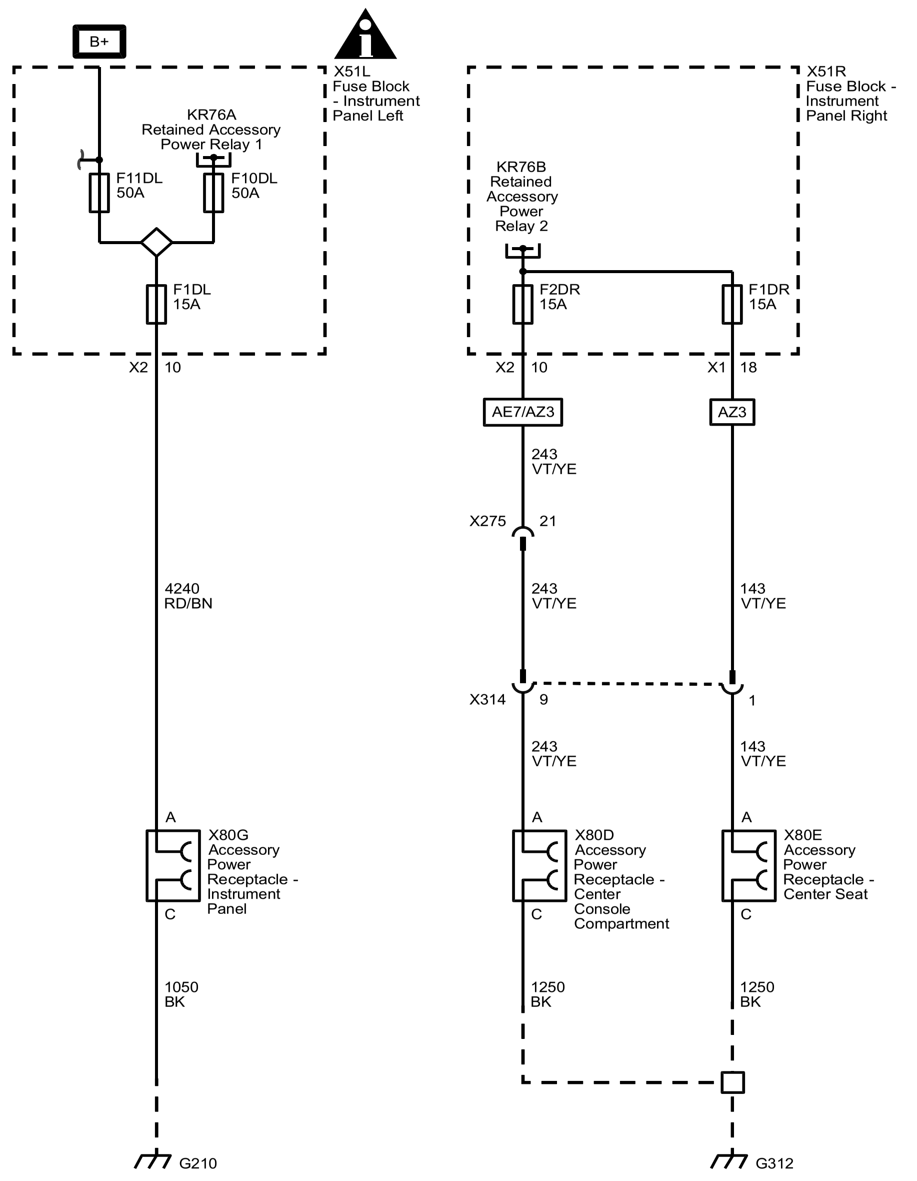
Depending on the vehicle contents, the K56 Serial Data Gateway Module is gating between primary High Speed GMLAN Bus, Gateway Expansion High Speed GMLAN Bus, Gateway Isolated High Speed GMLAN Bus, and Chassis High Speed GMLAN Bus. The K56 Serial Data Gateway Module is also gating between primary Low Speed GMLAN Bus and Gateway Isolated Low Speed GMLAN Bus.

Communication between the K56 Serial Data Gateway Module and a scan tool is done through the primary High Speed GMLAN Bus.

# Power Outlets

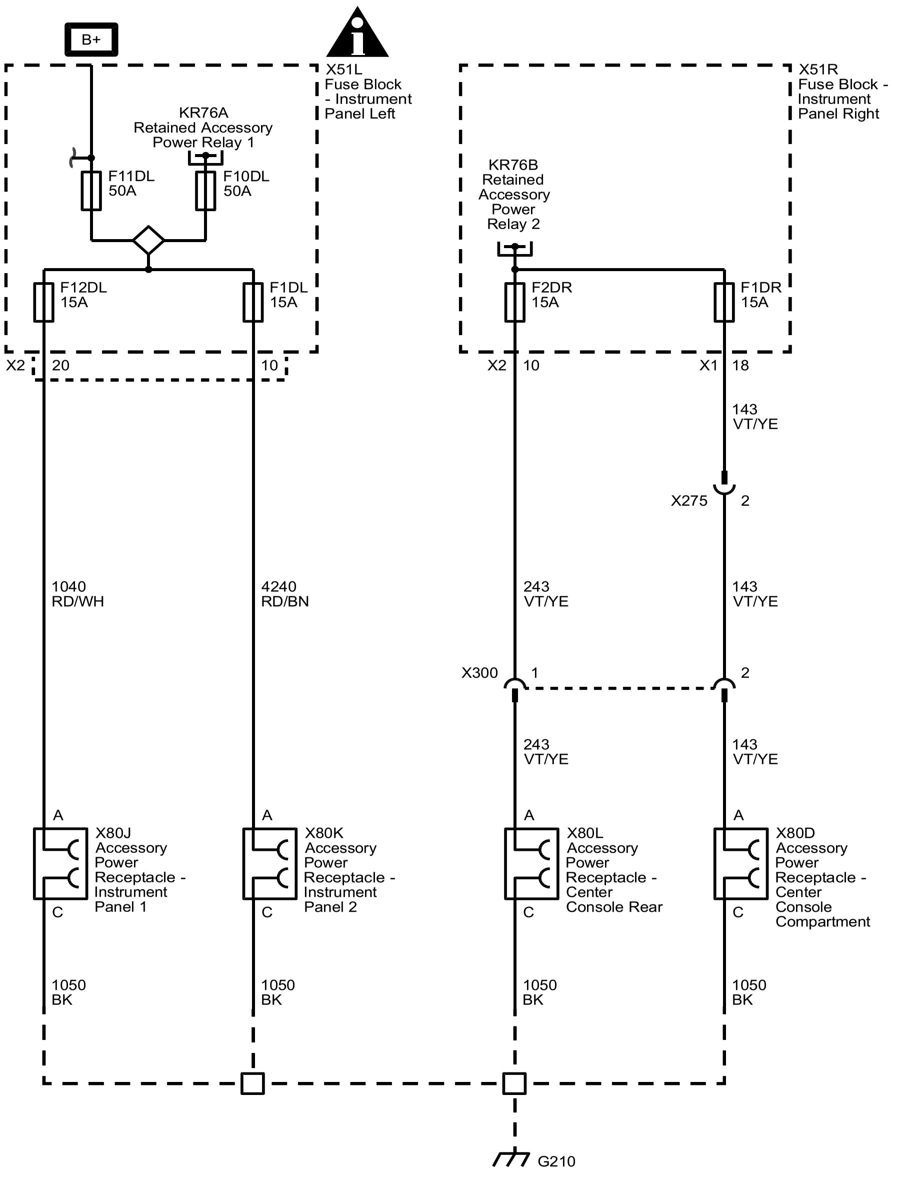
## Schematic and Routing Diagrams

# Cigar Lighter/Power Outlet Schematics (12-Volt DC Power Outlets - Bench Seat (-D07))


B+
X51L
Fuse Block
- Instrument
Panel Left
KR76A
Retained Accessory
Power Relay 1
F11DL
50A
F10DL
50A
F1DL
15A
X2 10
4240
RD/BN
A
X80G
Accessory
Power
Receptacle -
Instrument
Panel
C
1050
BK
G210
X51R
Fuse Block -
Instrument
Panel Right
KR76B
Retained
Accessory
Power
Relay 2
F2DR
15A
F1DR
15A
X2 10
X1 18
AE7/AZ3
AZ3
243
VT/YE
X275 21
243
VT/YE
143
VT/YE
X314 9
1
243
VT/YE
143
VT/YE
A
X80D
Accessory
Power
Receptacle -
Center
Console
Compartment
C
A
X80E
Accessory
Power
Receptacle -
Center Seat
C
1250
BK
1250
BK
G312

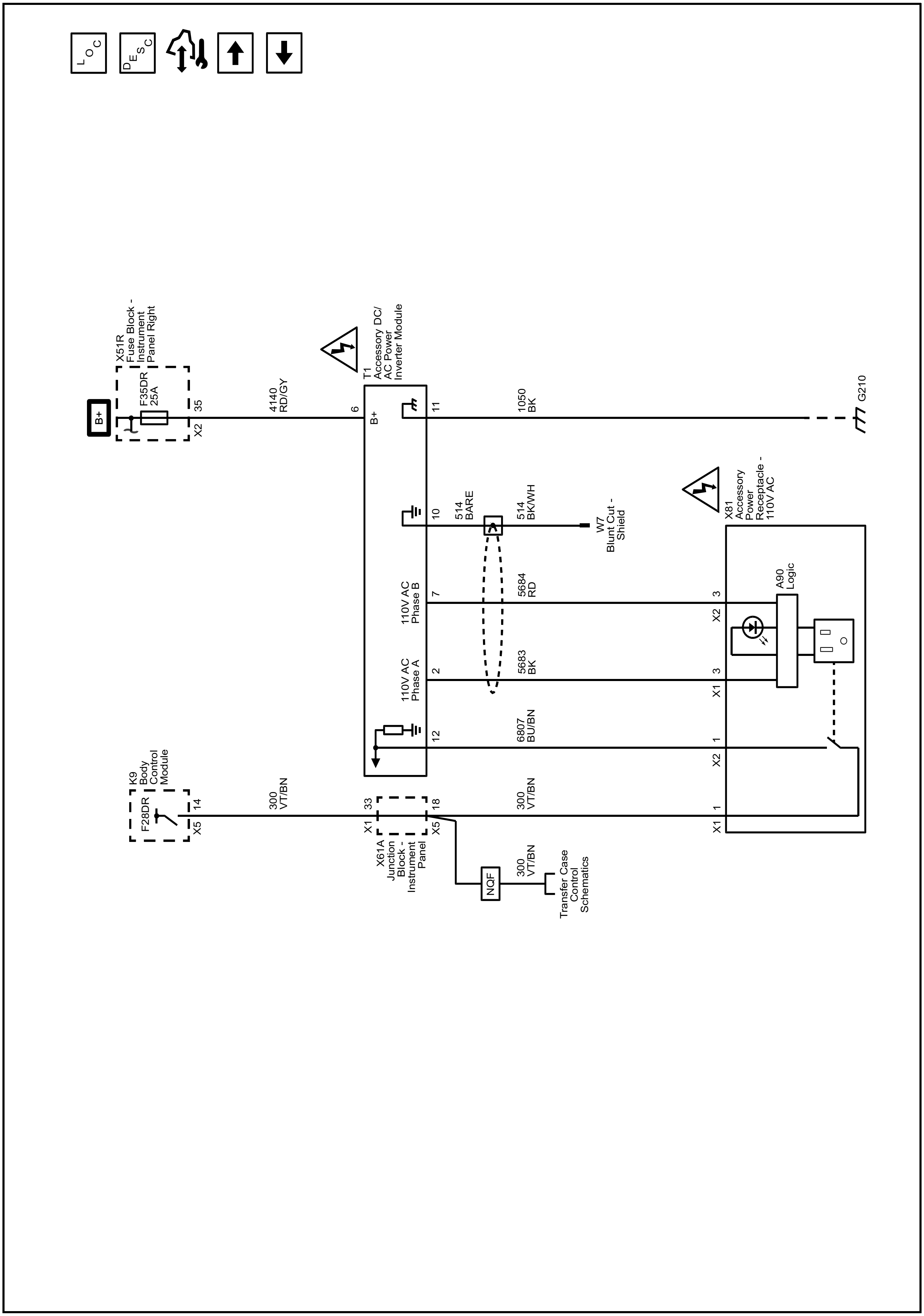
4914841

## Cigar Lighter/Power Outlet Schematics (12-Volt DC Power Outlets - Floor Console (D07))

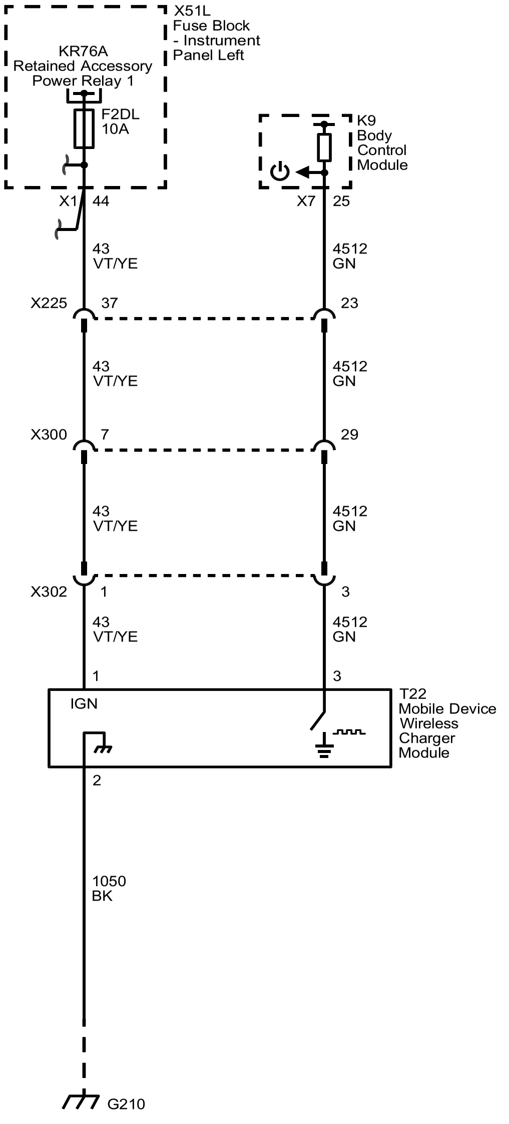

B+
X51L
Fuse Block
- Instrument
Panel Left
KR76A
Retained Accessory
Power Relay 1
F11DL
50A
F10DL
50A
F12DL
15A
F1DL
15A
X2
20
10
X51R
Fuse Block -
Instrument
Panel Right
KR76B
Retained
Accessory
Power
Relay 2
F2DR
15A
F1DR
15A
X2
10
X1
18
143
VT/YE
X275
2
1040
RD/WH
4240
RD/BN
243
VT/YE
143
VT/YE
X300
1
2
243
VT/YE
143
VT/YE
A
X80J
Accessory
Power
Receptacle -
Instrument
Panel 1
C
A
X80K
Accessory
Power
Receptacle -
Instrument
Panel 2
C
A
X80L
Accessory
Power
Receptacle -
Center
Console Rear
C
A
X80D
Accessory
Power
Receptacle -
Center
Console
Compartment
C
1050
BK
1050
BK
1050
BK
1050
BK
G210

4914842

# Cigar Lighter/Power Outlet Schematics (110-Volt AC Power Outlet (KI4))


4914843
LOC
DESC
B+
X51R
Fuse Block - Instrument Panel Right
F35DR 25A
X2 35
4140 RD/GY
6
B+
T1
Accessory DC/AC Power Inverter Module
11
1050 BK
G210
10
514 BARE
514 BK/WH
W7
Blunt Cut - Shield
X81
Accessory Power Receptacle - 110V AC
110V AC Phase B
7
5684 RD
X2 3
A90 Logic
110V AC Phase A
2
5683 BK
X1 3
12
6807 BU/BN
X2 1
K9
Body Control Module
F28DR
X5 14
300 VT/BN
X1 33
X5 18
X61A
Junction Block - Instrument Panel
300 VT/BN
X1 1
NQF
300 VT/BN
Transfer Case Control Schematics

# Cigar Lighter/Power Outlet Schematics (Wireless Charging (K4C))


X51L
Fuse Block
- Instrument
Panel Left
KR76A
Retained Accessory
Power Relay 1
F2DL
10A
X1
44
43
VT/YE
X225
37
43
VT/YE
X300
7
43
VT/YE
X302
1
43
VT/YE
1
IGN
2
1050
BK
G210
K9
Body
Control
Module
X7
25
4512
GN
23
4512
GN
29
4512
GN
3
4512
GN
3
T22
Mobile Device
Wireless
Charger
Module

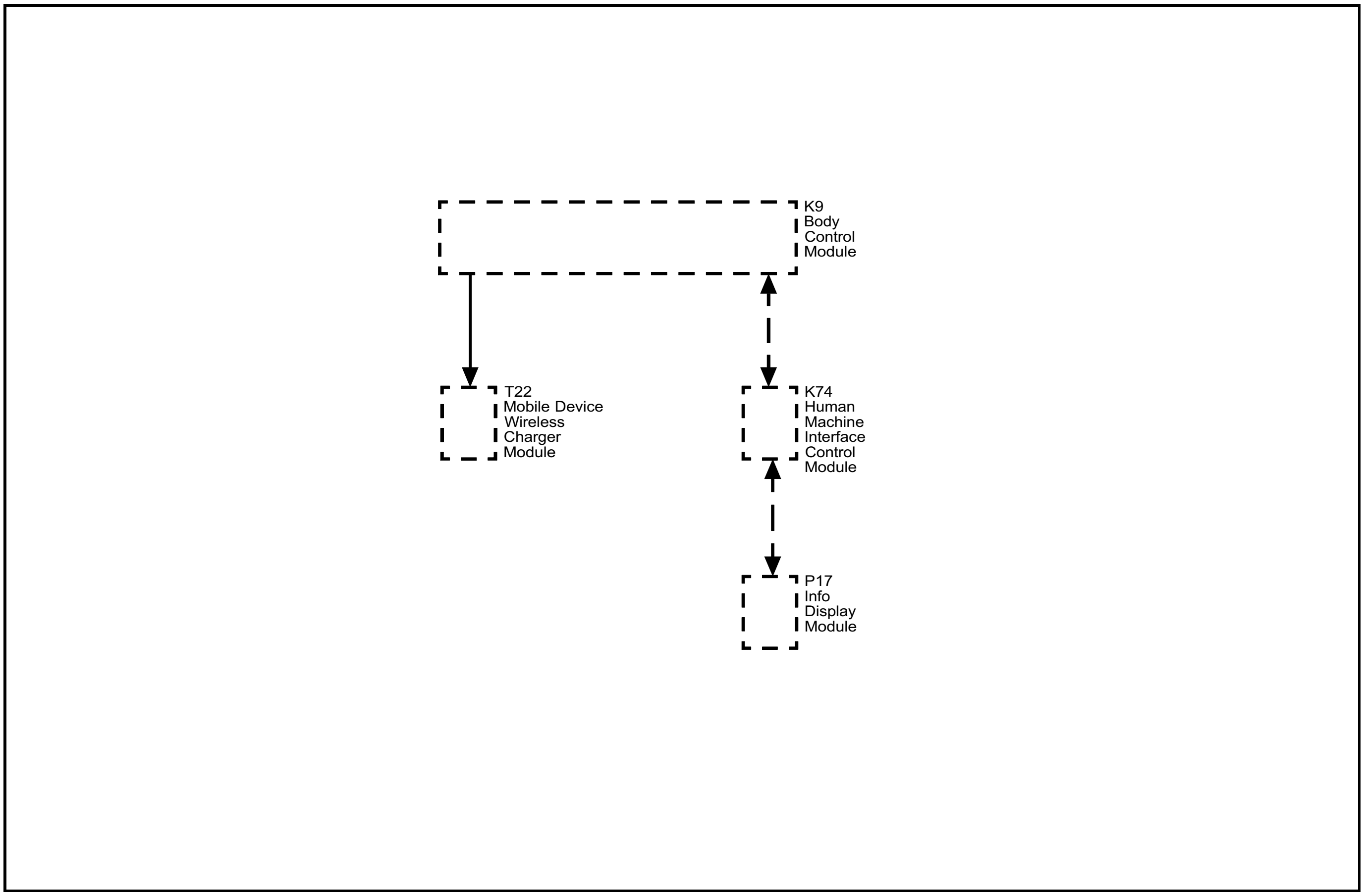
4914844

# Description and Operation

## Mobile Device Wireless Charger Description and Operation

### Mobile Device Wireless Charging System

**Mobile Device Wireless Charging System Block Diagram**



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The Mobile Device Wireless Charging System (WCS) is an system for wirelessly charging mobile devices. It is capable of charging the batteries of compatible mobile devices. A compatible device is one that is compliant with Power Matters Alliance (PMA) or Wireless Power Consortium (WPC) Standard, meaning that it is equipped with a PMA or WPC wireless charge “receiver” that will work with the charge “transmitter” installed in the vehicle. The devices may utilize built-in charging circuitry or an adapter (external plug-in device which contains the charging circuitry). To check for phone or other device compatibility, refer to GM Total Connect.

***Warning: Remove all objects from the charging pad before charging your mobile device. Objects, such as coins, keys, rings, paper clips, or cards, between the phone and charging pad will become very hot. On the rare occasion that the charging system does not detect an object, and the object gets wedged between the phone and charger, remove the phone and allow the object to cool before removing it from the charging pad, to prevent burns.***

### Charging

To charge a device, place it on the charging surface in the vehicle. There is a charging coil located in the center of the charging surface. The device has a charging coil typically near the center of the device. These coils must be lined up in order for charging to proceed. When the interruptible retained accessory power (IRAP) relay is closed (this is true typically when vehicle ignition is in Run or Accessory position), the WCS will detect the device, establish communications with the device to confirm it is a compatible device, and then deliver charging power to the device via wireless interface. The WCS will be able to deliver up to 5W of power to compatible devices. It shall only enter a charging state if communication is established and a compatible device is identified.

The WCS shall not enter a charging state if there is no communication established with a compatible device. If a non-compatible device or metallic foreign object is detected, the WCS will not transfer power. The charger monitors its internal temperature and will shut down if the charger temperature exceeds 185F (85C).

## Indicator

The body control module will detect the device battery is charging and send a serial data message on the GMLAN bus to the radio display. The radio display will indicate a device is currently charging. When the indicator is toggling on and off this indicates a thermal limit has been reached and the device will not charge. For more information refer to the infotainment owners manual.

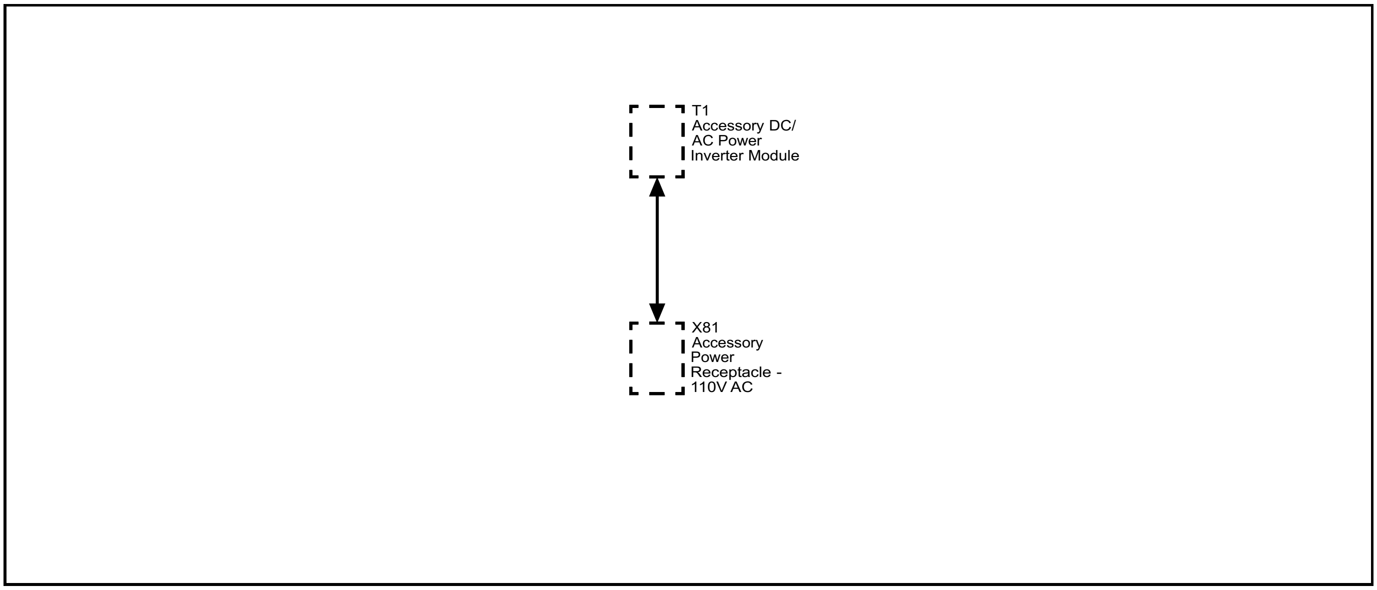
# Power Outlets Description and Operation

## 12 Volt Power Outlet Receptacle Description and Operation

The vehicle is fitted with a 12 V accessory power receptacle. The accessory power receptacles are controlled by an ignition operated relay. The accessory power receptacles are operational when the ignition is turned to either the On or the Accessories positions. The X80J and X80K accessory power receptacles may be configured to be operational when the ignition is Off by changing the position of the 50A fuse from the F10DL position to the F11DL position in the left instrument panel fuse block.

## 110 Volt Power Outlet Receptacle System Description

**Power Outlets Block Diagram**


T1
Accessory DC/ AC Power Inverter Module
X81
Accessory Power Receptacle - 110V AC
3403851

The alternating current (AC) accessory power outlet system consists of the accessory DC/AC power inverter module and the accessory power receptacle – 110 V AC. The accessory DC/AC power inverter module converts 12 V direct current (DC) battery power to 110 V at 60 Hertz (Hz) AC power to operate AC powered devices. The accessory DC/AC power inverter module provides up to 150 watts of power. The accessory power receptacle – 110 V AC provides the usual connection for AC powered devices.

## 110 Volt Power Outlet Receptacle System Operation

The accessory DC/AC power inverter module receives fuse protected battery voltage and is connected to the 12 V electrical system ground. The accessory power receptacle – 110 V AC has an internal switch, that detects when an AC powered device is plugged into the outlet. When the ignition is ON, and an AC powered device is plugged into the accessory power receptacle – 110 V AC, the normally open switch in the accessory power receptacle – 110 V AC, closes. When the accessory DC/AC power inverter module detects the voltage from the accessory power receptacle – 110 V AC switch, the inverter module begins to supply 110 V AC to the accessory power receptacle – 110 V AC after a 1.5 s delay. The accessory AC power system is protected against circuit overload and circuit shorts to ground.

## 110 Volt Power Outlet Receptacle Isolation Fault Protection

The accessory DC/AC power inverter module contains a ground fault circuit interrupter (GFCI). GFCI monitors the 110 V circuit for a short to vehicle chassis ground. If a 110 V AC short to ground is detected, the accessory DC/AC power inverter module will turn OFF. The module remains OFF, until the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 s delay.

## 110 Volt Power Outlet Receptacle Overload Shutdown

The accessory DC/AC power inverter module will turn OFF if the current in the 110 V circuit is greater than 3.8 A for 1 s , or 2.5 A for 10 s . The module will turn ON again, when the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 s delay.

## 110 Volt Power Outlet Receptacle Internal Shutdown

The accessory DC/AC power inverter module will turn OFF if the B+ supply voltage is greater than 16.5 V or less than 11 V. The module will also turn OFF if the device temperature is greater than 85°C (185°F). The module will turn ON again, after the shutdown condition is corrected, and the AC powered device is unplugged from the outlet, and then plugged into the outlet.

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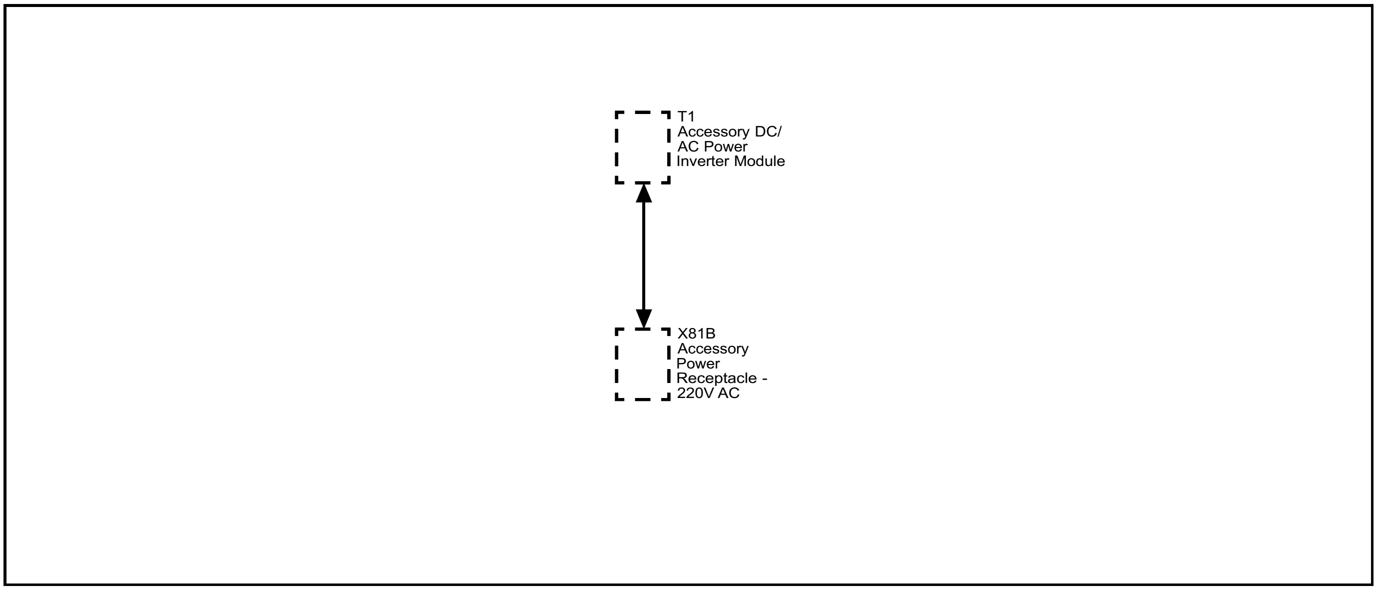
## 230 Volt Power Outlet Receptacle System Description

### Power Outlets Block Diagram



3403853

The alternating current (AC) accessory power outlet system consists of the accessory DC/AC power inverter module and the accessory power receptacle – 220V AC. The accessory DC/AC power inverter module converts 12 V direct current (DC) battery power to 220–230 V at 50 Hertz (Hz) AC power to operate AC powered devices. The accessory DC/AC power inverter module provides up to 150 watts of power. The accessory power receptacle – 220V AC provides the usual connection for AC powered devices.

## 230 Volt Power Outlet Receptacle System Operation

The accessory DC/AC power inverter module receives fuse protected battery voltage and is connected to the 12 V electrical system ground. The accessory power receptacle – 220V AC has an internal switch, that detects when an AC powered device is plugged into the outlet. When the ignition is ON, and an AC powered device is plugged into the accessory power receptacle – 220V AC, the normally open switch in the accessory power receptacle – 220V AC, closes. When the accessory DC/AC power inverter module detects the voltage from the accessory power receptacle – 220V AC switch, the inverter module begins to supply 220–230 V AC to the accessory power receptacle – 220V AC after a 1.5 second delay. The accessory AC power system is protected against circuit overload and circuit shorts to ground.

## 230 Volt Power Outlet Receptacle Isolation Fault Protection

The accessory DC/AC power inverter module contains a ground fault circuit interrupter (GFCI). GFCI monitors the 230 V circuit for a short to vehicle chassis ground. If a 230 V AC short to ground is detected, the accessory DC/AC power inverter module will turn OFF. The module remains OFF, until the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 s delay.

## 230 Volt Power Outlet Receptacle Overload Shutdown

The accessory AC/DC power control module will turn OFF if the current in the 230 V circuit is greater than 3.8 A for 1 second, or 2.5 A for 10 seconds. The module will turn ON again, when the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 second delay.

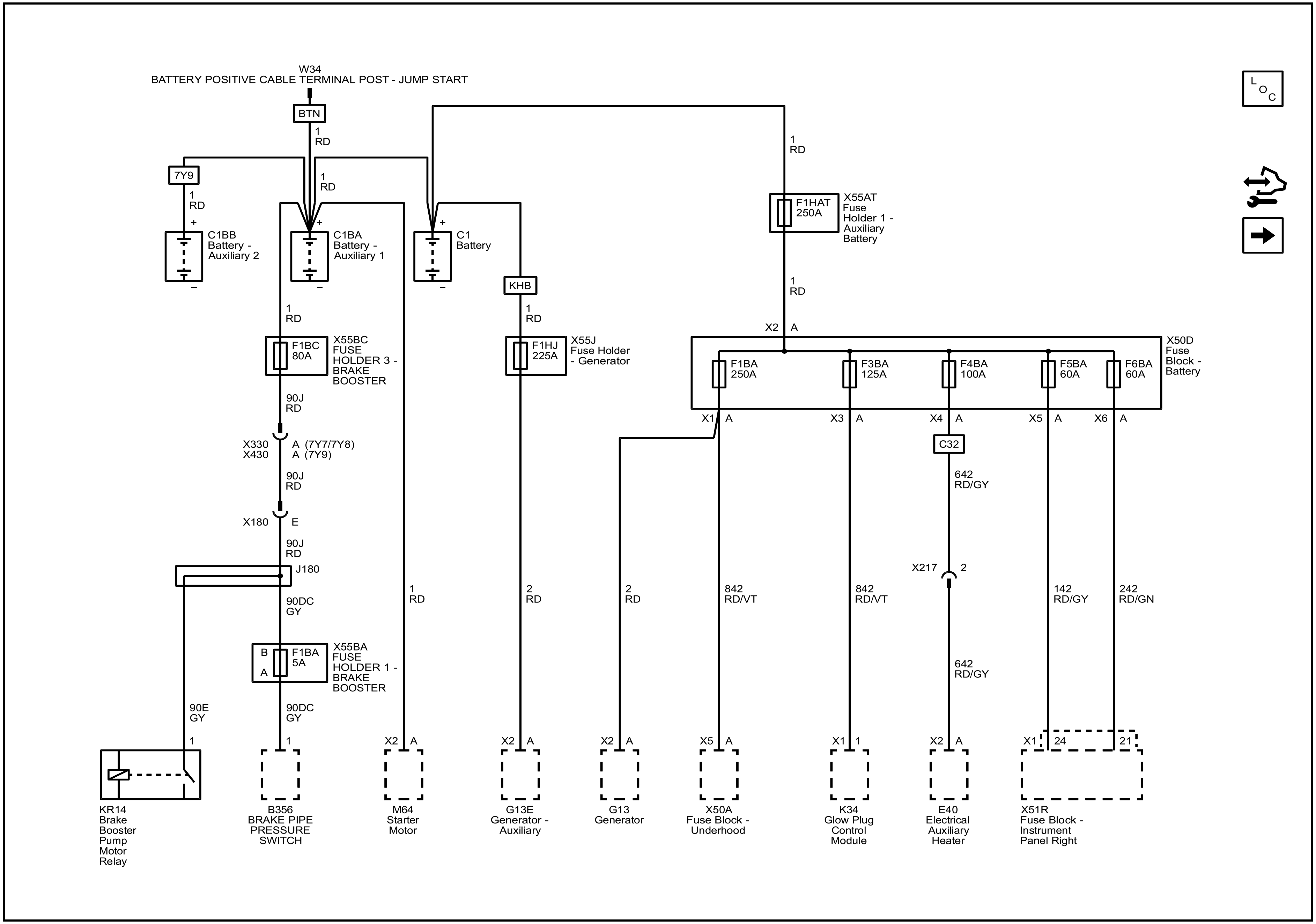
## 230 Volt Power Outlet Receptacle Internal Shutdown

The accessory DC/AC power inverter module will turn OFF if the B+ supply voltage is greater than 16.5 V or less than 11 V. The module will also turn OFF if the device temperature is greater than 85°C (185°F). The module will turn ON again, after the shutdown condition is corrected, and the AC powered device is unplugged from the accessory power receptacle – 220V AC, and then plugged into the accessory power receptacle – 220V AC.

# Wiring Systems and Power Management

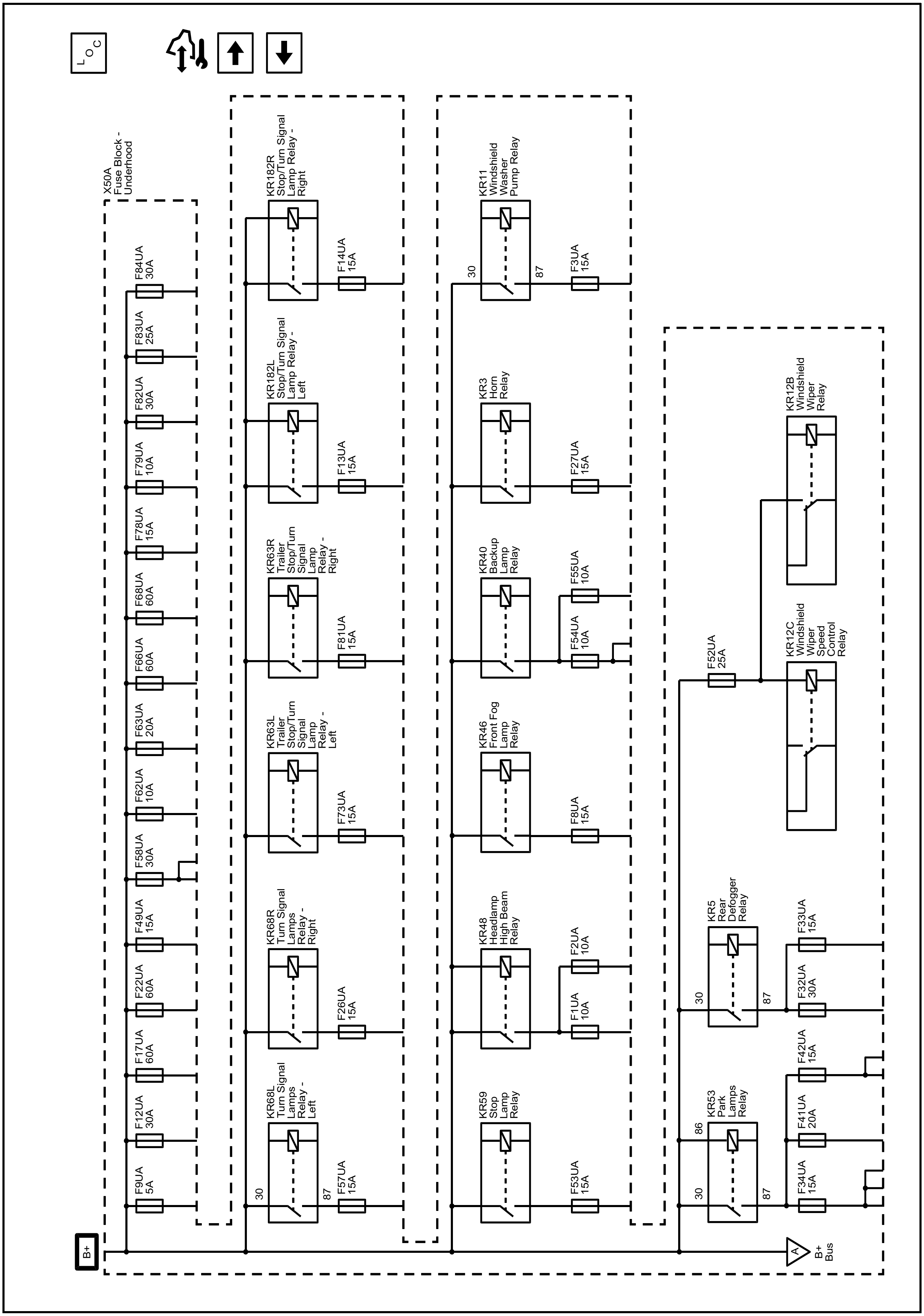
## Schematic and Routing Diagrams

## Power Distribution Schematics (X50D Fuse Block - Battery)

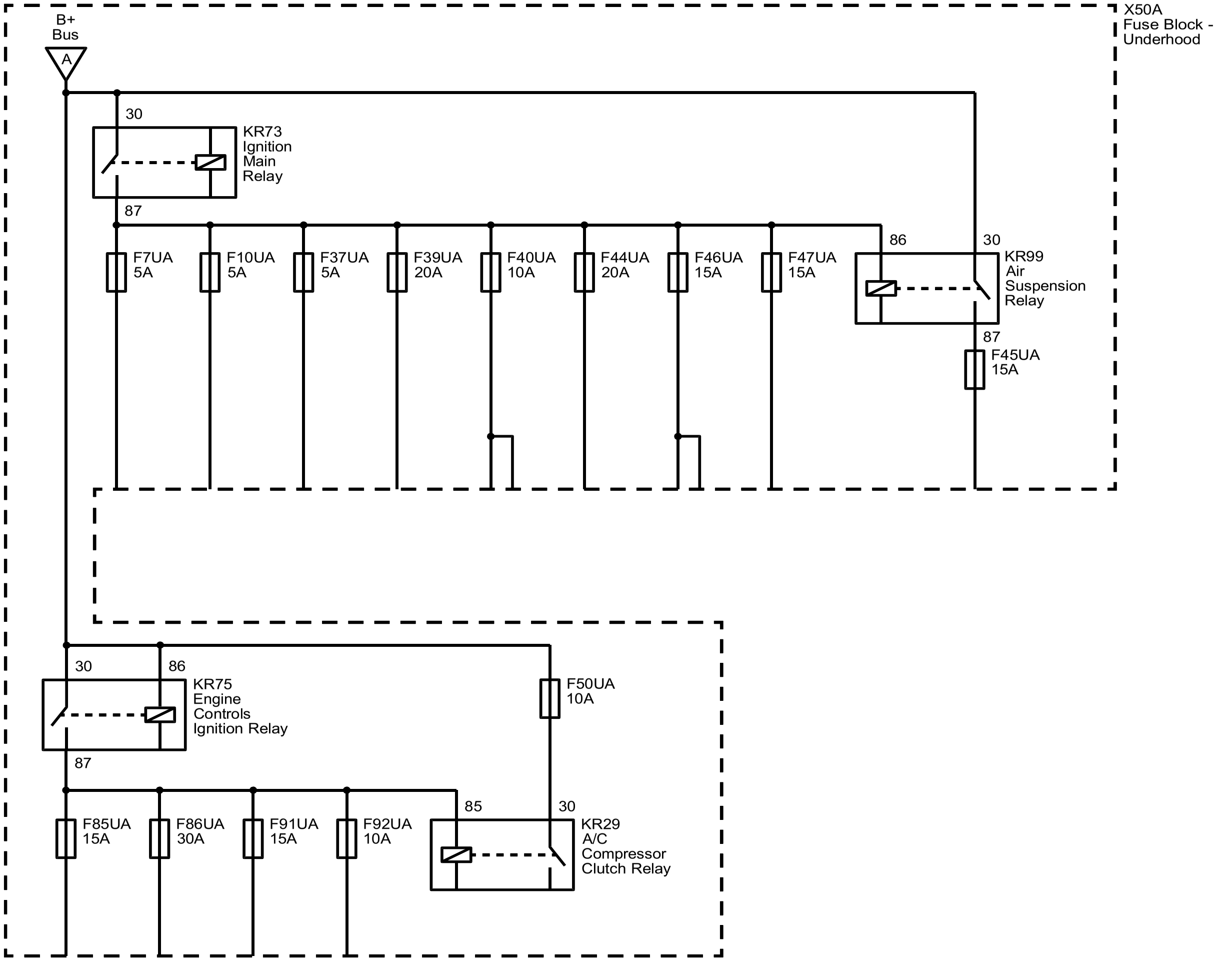


W34
BATTERY POSITIVE CABLE TERMINAL POST - JUMP START
BTN
1 RD
7Y9
1 RD
C1BB Battery - Auxiliary 2
C1BA Battery - Auxiliary 1
C1 Battery
KHB
1 RD
F1BC 80A
X55BC FUSE HOLDER 3 - BRAKE BOOSTER
90J RD
X330 X430
A (7Y7/7Y8)
A (7Y9)
90J RD
X180 E
90J RD
J180
90DC GY
F1BA 5A
B A
X55BA FUSE HOLDER 1 - BRAKE BOOSTER
90E GY
90DC GY
F1HJ 225A
X55J Fuse Holder - Generator
F1HAT 250A
X55AT Fuse Holder 1 - Auxiliary Battery
X2 A
X50D Fuse Block - Battery
F1BA 250A
F3BA 125A
F4BA 100A
F5BA 60A
F6BA 60A
X1 A
X3 A
X4 A
X5 A
X6 A
C32
642 RD/GY
X217 2
642 RD/GY
2 RD
842 RD/VT
842 RD/VT
142 RD/GY
242 RD/GN
1 RD
2 RD
1
1
X2 A
X2 A
X2 A
X5 A
X1 1
X2 A
X1 24
21
KR14 Brake Booster Pump Motor Relay
B356 BRAKE PIPE PRESSURE SWITCH
M64 Starter Motor
G13E Generator - Auxiliary
G13 Generator
X50A Fuse Block - Underhood
K34 Glow Plug Control Module
E40 Electrical Auxiliary Heater
X51R Fuse Block - Instrument Panel Right
L O C
4914845

# Power Distribution Schematics (B+ Bus X50A Fuse Block - Underhood 1 of 2)

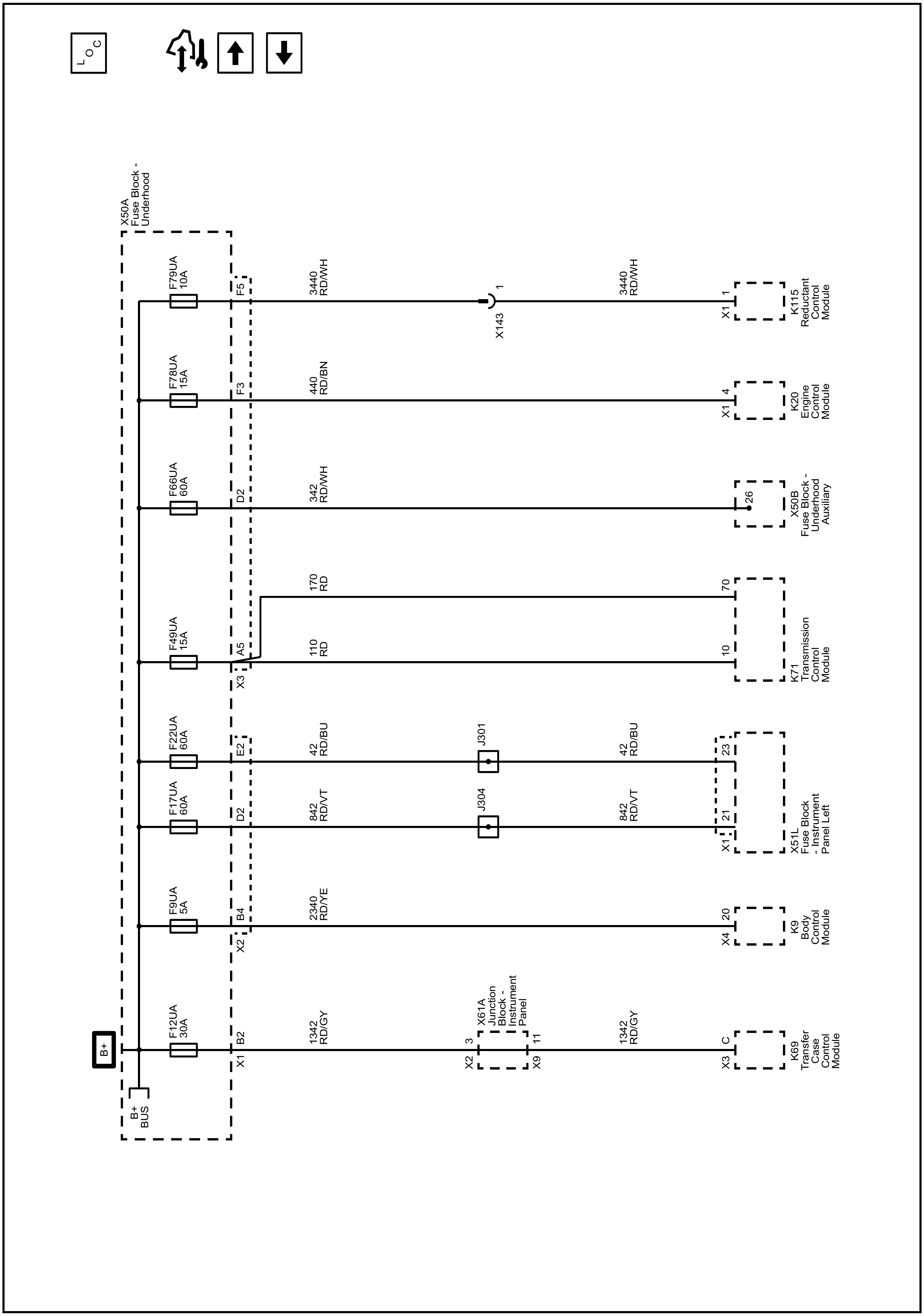

4914847
X50A Fuse Block - Underhood
F84UA 30A
F83UA 25A
F82UA 30A
F79UA 10A
F78UA 15A
F68UA 60A
F66UA 60A
F63UA 20A
F62UA 10A
F58UA 30A
F49UA 15A
F22UA 60A
F17UA 60A
F12UA 30A
F9UA 5A
KR182R Stop/Turn Signal Lamp Relay - Right
F14UA 15A
KR182L Stop/Turn Signal Lamp Relay - Left
F13UA 15A
KR63R Trailer Stop/Turn Signal Lamp Relay - Right
F81UA 15A
KR63L Trailer Stop/Turn Signal Lamp Relay - Left
F73UA 15A
KR68R Turn Signal Lamps Relay - Right
F26UA 15A
KR68L Turn Signal Lamps Relay - Left
30
87
F57UA 15A
KR11 Windshield Washer Pump Relay
30
87
F3UA 15A
KR3 Horn Relay
F27UA 15A
KR40 Backup Lamp Relay
F55UA 10A
F54UA 10A
KR46 Front Fog Lamp Relay
F8UA 15A
KR48 Headlamp High Beam Relay
F2UA 10A
F1UA 10A
KR59 Stop Lamp Relay
F53UA 15A
KR12B Windshield Wiper Relay
KR12C Windshield Wiper Speed Control Relay
F52UA 25A
KR5 Rear Defogger Relay
30
87
F33UA 15A
F32UA 30A
F42UA 15A
KR53 Park Lamps Relay
86
30
87
F41UA 20A
F34UA 15A
B+
A
B+ Bus

# Power Distribution Schematics (B+ Bus X50A Fuse Block - Underhood 2 of 2)

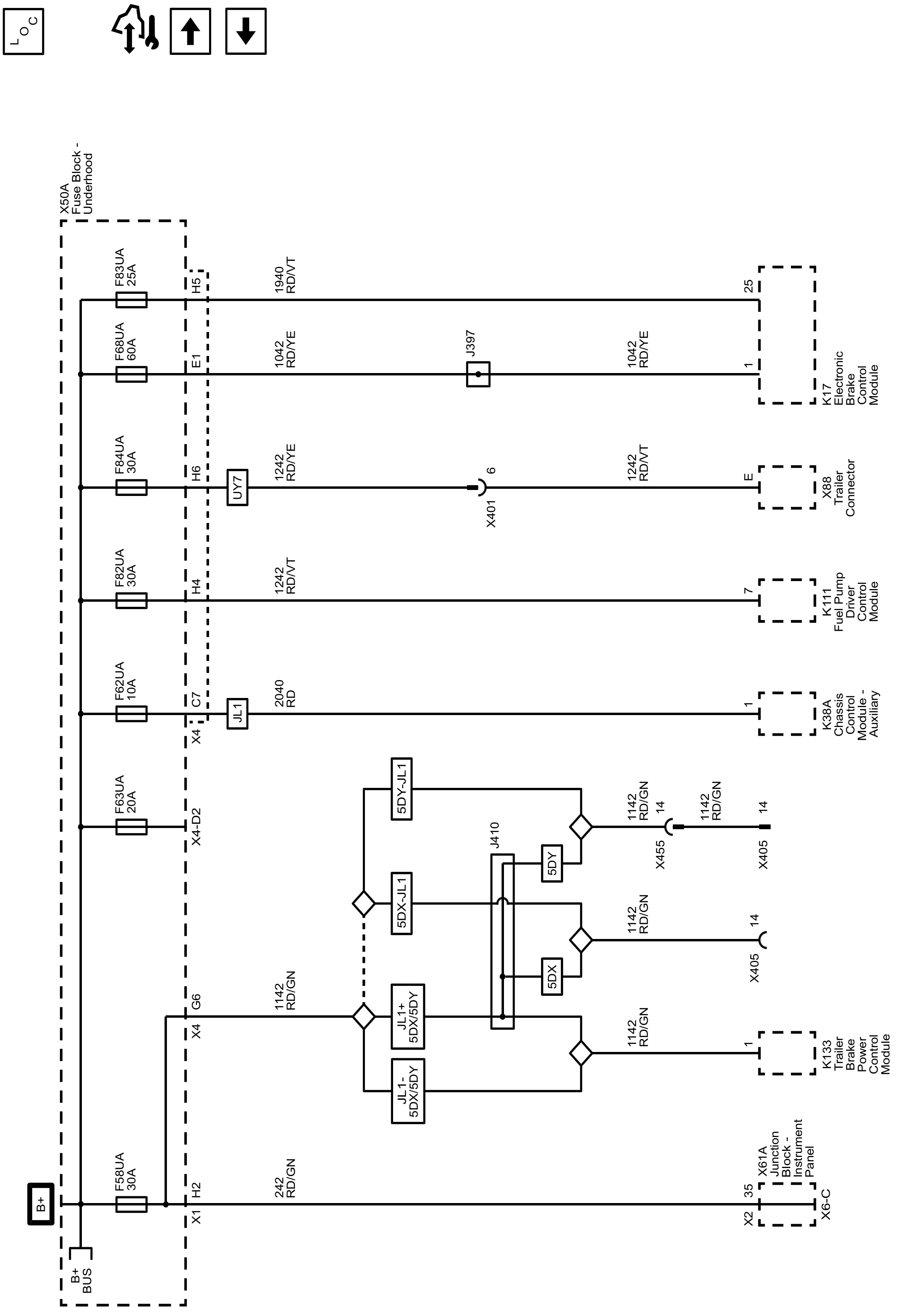

X50A
Fuse Block -
Underhood
B+
Bus
A
30
KR73
Ignition
Main
Relay
87
F7UA
5A
F10UA
5A
F37UA
5A
F39UA
20A
F40UA
10A
F44UA
20A
F46UA
15A
F47UA
15A
86
30
KR99
Air
Suspension
Relay
87
F45UA
15A
30
86
KR75
Engine
Controls
Ignition Relay
87
F50UA
10A
F85UA
15A
F86UA
30A
F91UA
15A
F92UA
10A
85
30
KR29
A/C
Compressor
Clutch Relay

4914849

## Power Distribution Schematics (F9UA, F12UA, F17UA, F22UA, F49UA, F66UA, F78UA, and F79UA Fuses)


4914850
L O C
X50A
Fuse Block - Underhood
B+
B+ BUS
F79UA 10A
F78UA 15A
F66UA 60A
F49UA 15A
F22UA 60A
F17UA 60A
F9UA 5A
F12UA 30A
F5
F3
D2
A5
X3
E2
D2
B4
X2
B2
X1
3440 RD/WH
440 RD/BN
342 RD/WH
170 RD
110 RD
42 RD/BU
842 RD/VT
2340 RD/YE
1342 RD/GY
1
X143
J301
J304
X61A Junction Block - Instrument Panel
X2 3
11 X9
X1 1
K115 Reductant Control Module
X1 4
K20 Engine Control Module
26
X50B Fuse Block - Underhood Auxiliary
70
10
K71 Transmission Control Module
23
21
X1
X51L Fuse Block - Instrument Panel Left
X4 20
K9 Body Control Module
X3 C
K69 Transfer Case Control Module

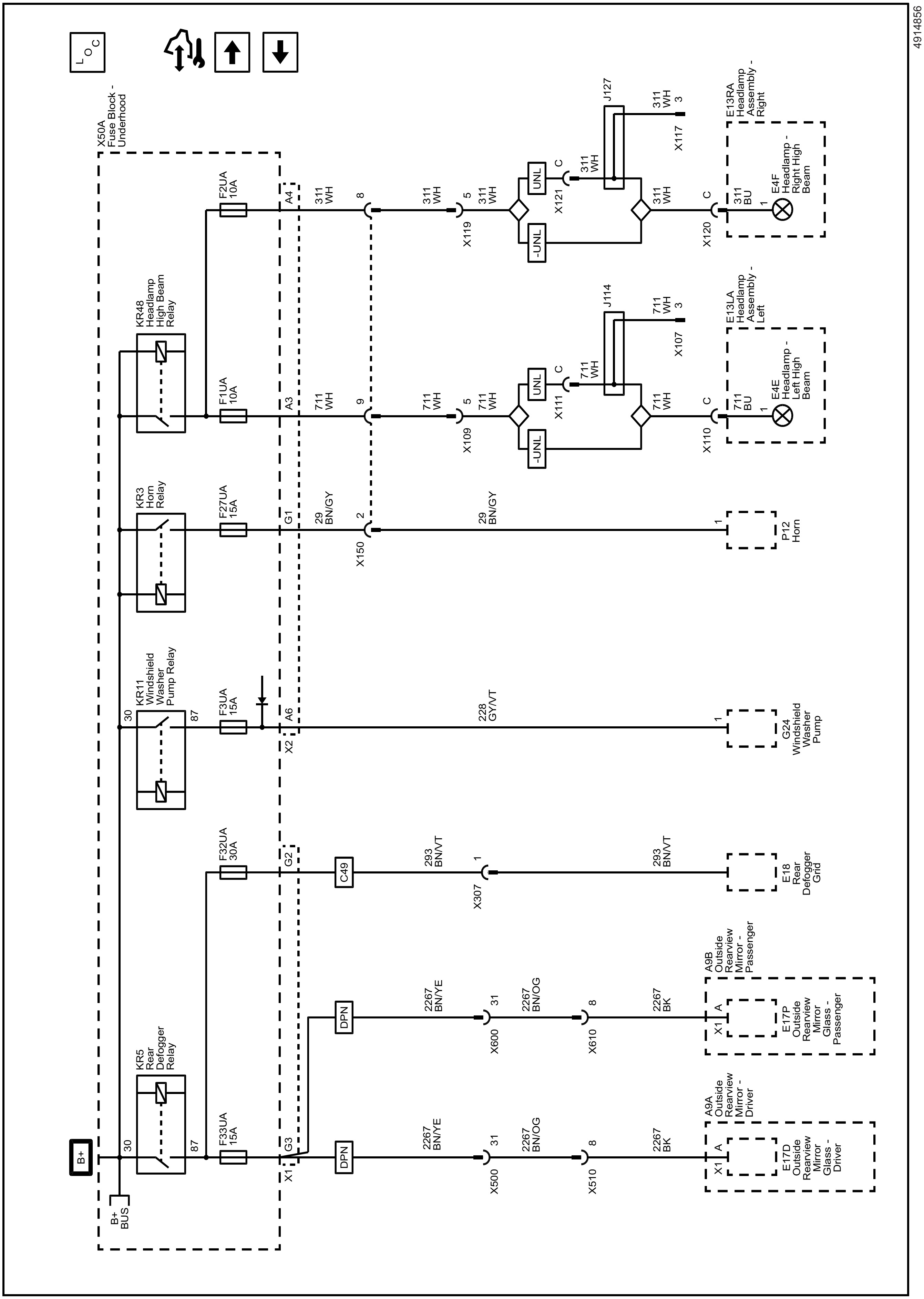
# Power Distribution Schematics (F58UA, F62UA, F63UA, F68UA, F82UA F83UA and F84UA Fuses)



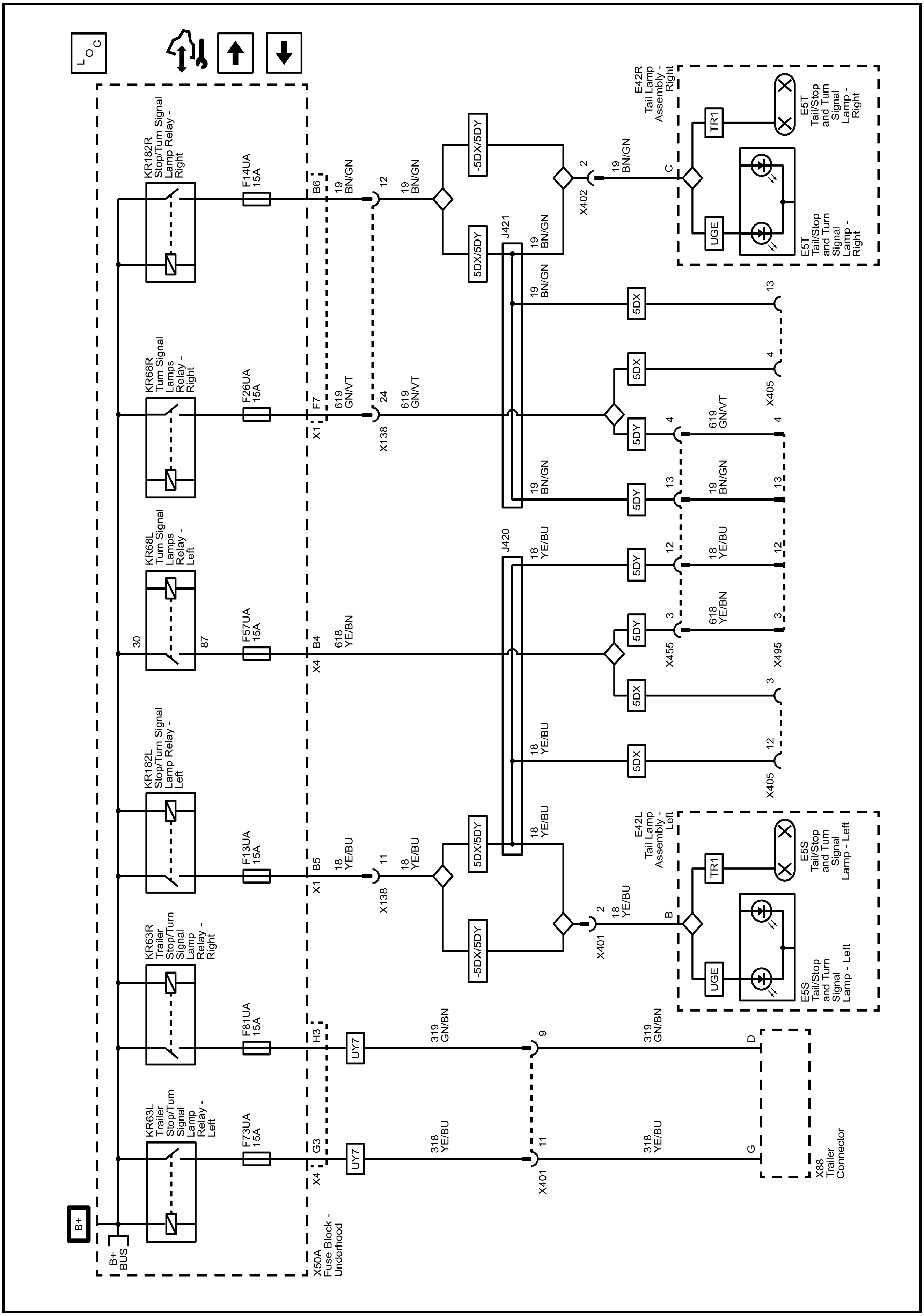
L O C
X50A Fuse Block - Underhood
B+
B+ BUS
F83UA 25A
H5
1940 RD/VT
25
F68UA 60A
E1
1042 RD/YE
J397
1042 RD/YE
1
K17 Electronic Brake Control Module
F84UA 30A
H6
UY7
1242 RD/YE
6
X401
1242 RD/VT
E
X88 Trailer Connector
F82UA 30A
H4
1242 RD/VT
7
K111 Fuel Pump Driver Control Module
F62UA 10A
C7
X4
JL1
2040 RD
1
K38A Chassis Control Module - Auxiliary
F63UA 20A
X4-D2
5DY-JL1
J410
5DY
1142 RD/GN
14
X455
1142 RD/GN
14
X405
5DX-JL1
1142 RD/GN
14
X405
5DX
G6
X4
1142 RD/GN
JL1+ 5DX/5DY
JL1- 5DX/5DY
1142 RD/GN
1
K133 Trailer Brake Power Control Module
F58UA 30A
H2
X1
242 RD/GN
35
X2
X61A Junction Block - Instrument Panel
X6-C

4914855

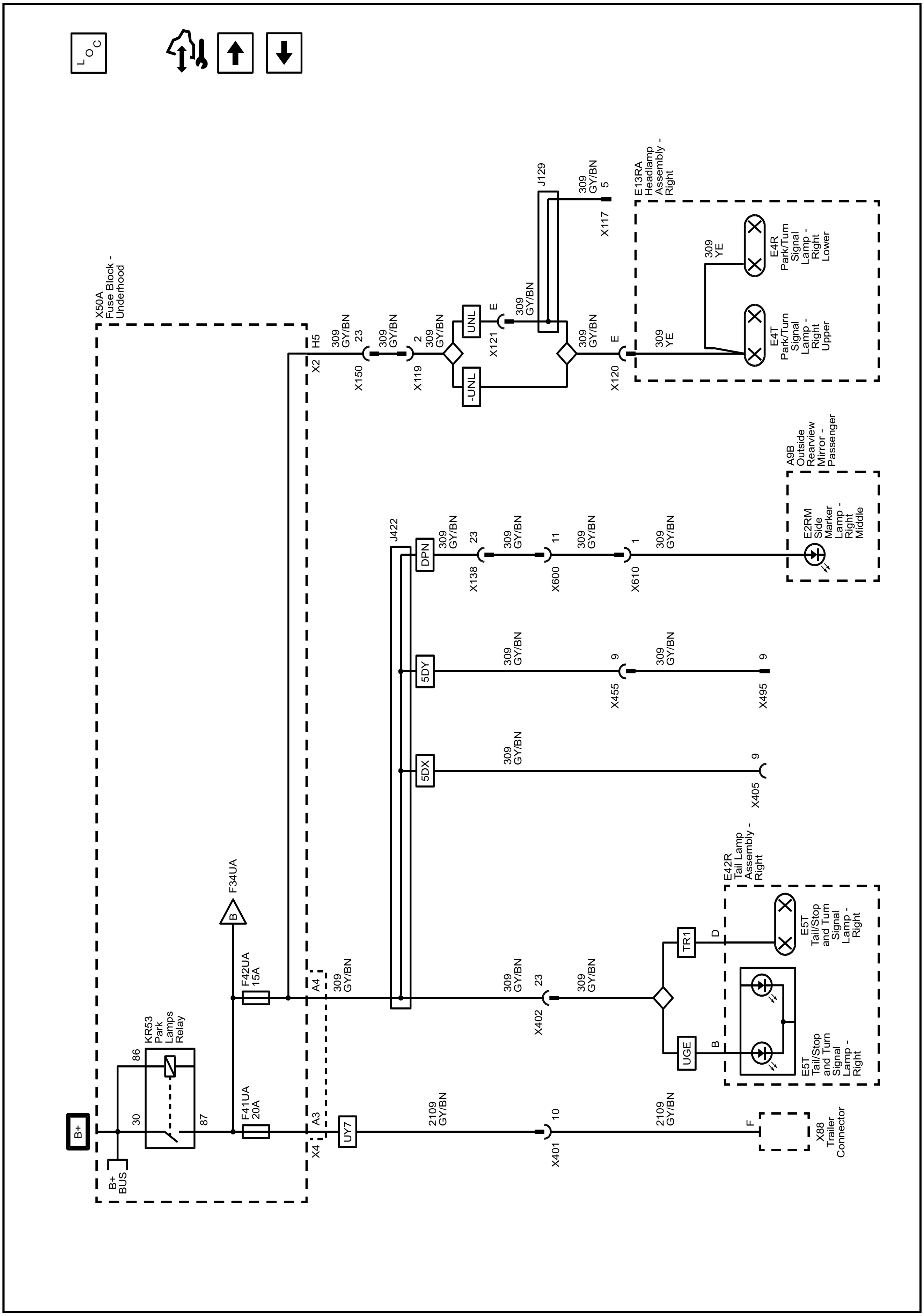
# Power Distribution Schematics (F1UA, F2UA, F3UA, F27UA, F32UA and F33UA Fuses)


LOC
X50A Fuse Block - Underhood
B+
B+ BUS
30
87
KR5 Rear Defogger Relay
KR11 Windshield Washer Pump Relay
KR3 Horn Relay
KR48 Headlamp High Beam Relay
F33UA 15A
F32UA 30A
F3UA 15A
F27UA 15A
F1UA 10A
F2UA 10A
X1
G3
G2
X2
A6
G1
A3
A4
DPN
C49
2267 BN/YE
31
X500
X600
2267 BN/OG
8
X510
X610
2267 BK
X1
A
A9A Outside Rearview Mirror - Driver
E17D Outside Rearview Mirror Glass - Driver
A9B Outside Rearview Mirror - Passenger
E17P Outside Rearview Mirror Glass - Passenger
293 BN/VT
1
X307
E18 Rear Defogger Grid
228 GY/VT
G24 Windshield Washer Pump
29 BN/GY
2
X150
P12 Horn
711 WH
9
5
X109
-UNL
UNL
X111
C
J114
X107
3
X110
711 BU
E4E Headlamp - Left High Beam
E13LA Headlamp Assembly - Left
311 WH
X119
X121
J127
X117
X120
311 BU
E4F Headlamp - Right High Beam
E13RA Headlamp Assembly - Right
4914856

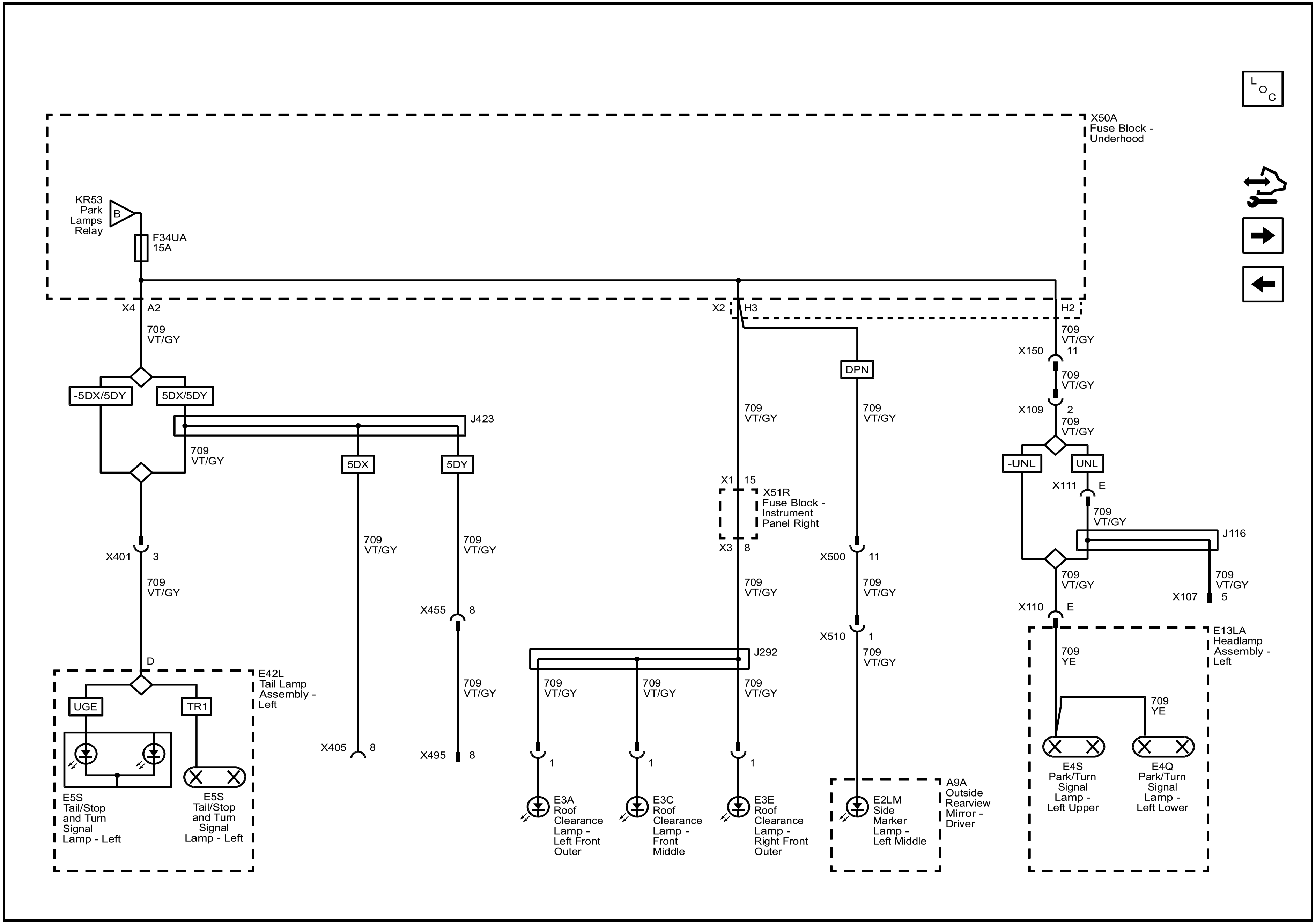
# Power Distribution Schematics (F13UA, F14UA, F26UA, F57UA, F73UA and F81UA Fuses)


4914904
L O C
B+
B+ BUS
X50A Fuse Block - Underhood
KR63L Trailer Stop/Turn Signal Lamp Relay - Left
KR63R Trailer Stop/Turn Signal Lamp Relay - Right
KR182L Stop/Turn Signal Lamp Relay - Left
KR68L Turn Signal Lamps Relay - Left
KR68R Turn Signal Lamps Relay - Right
KR182R Stop/Turn Signal Lamp Relay - Right
30
87
F73UA 15A
F81UA 15A
F13UA 15A
F57UA 15A
F26UA 15A
F14UA 15A
X4 G3
H3
X1 B5
X4 B4
X1 F7
B6
UY7
UY7
318 YE/BU
319 GN/BN
18 YE/BU
618 YE/BN
619 GN/VT
19 BN/GN
X401 11
9
X138 11
X138 24
12
5DX/5DY
-5DX/5DY
J420
J421
5DX
5DY
X401 2
X402 2
X405
X455
X495
3
12
13
4
E42L Tail Lamp Assembly - Left
E42R Tail Lamp Assembly - Right
B
C
UGE
TR1
E5S Tail/Stop and Turn Signal Lamp - Left
E5T Tail/Stop and Turn Signal Lamp - Right
D
G
X88 Trailer Connector

## Power Distribution Schematics (F41UA and F42UA Fuses)

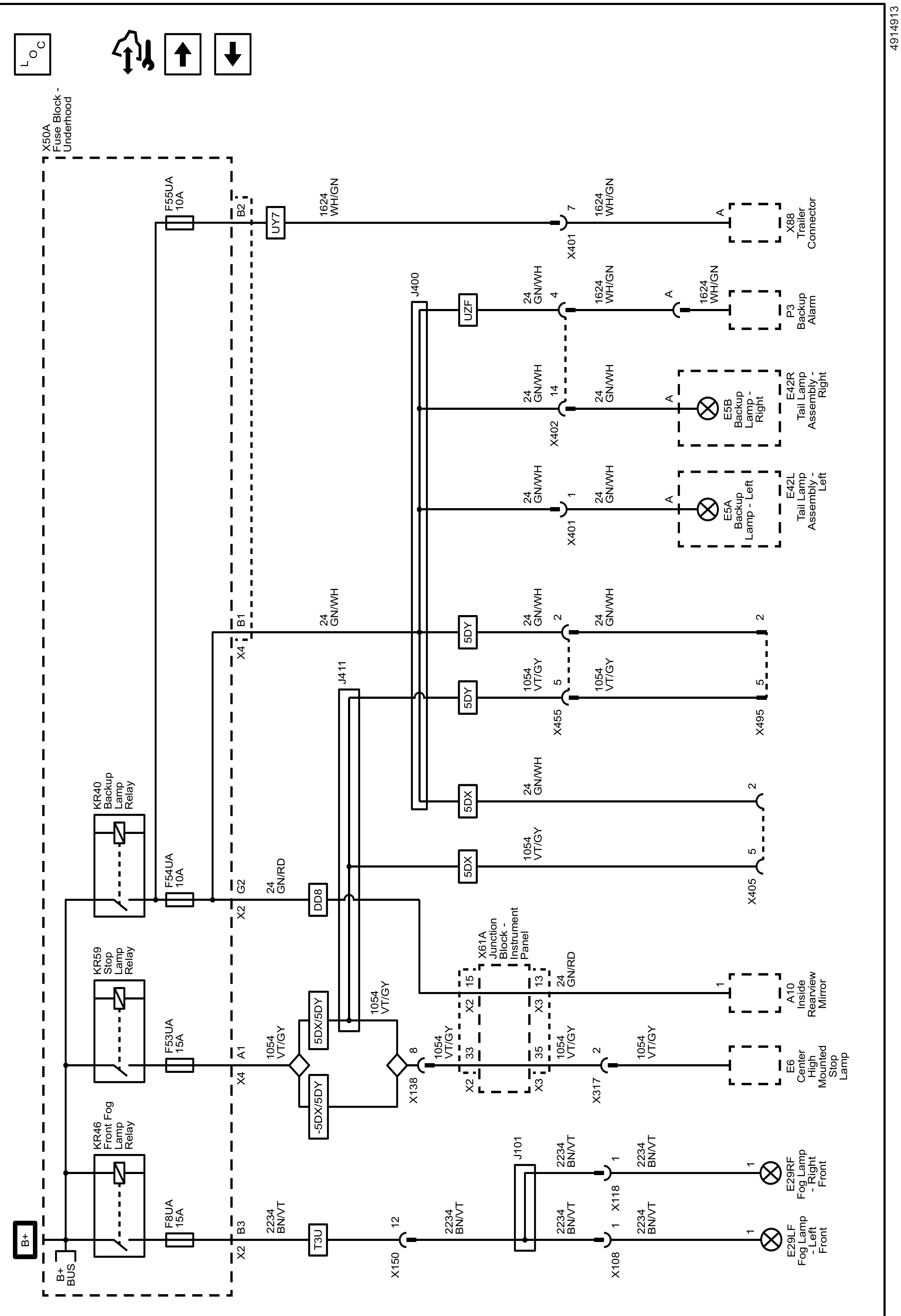

4914910
L O C
X50A Fuse Block - Underhood
B+
B+ BUS
30
87
86
KR53 Park Lamps Relay
F41UA 20A
F42UA 15A
F34UA
B
X4
A3
A4
X2
H5
UY7
2109 GY/BN
10
X401
2109 GY/BN
F
X88 Trailer Connector
309 GY/BN
23
X402
309 GY/BN
UGE
TR1
B
D
E42R Tail Lamp Assembly - Right
E5T Tail/Stop and Turn Signal Lamp - Right
E5T Tail/Stop and Turn Signal Lamp - Right
J422
5DX
309 GY/BN
9
X405
5DY
309 GY/BN
9
X455
309 GY/BN
9
X495
DPN
309 GY/BN
23
X138
309 GY/BN
11
X600
309 GY/BN
1
X610
309 GY/BN
A9B Outside Rearview Mirror - Passenger
E2RM Side Marker Lamp - Right Middle
309 GY/BN
23
X150
309 GY/BN
2
X119
309 GY/BN
UNL
-UNL
E
X121
309 GY/BN
J129
309 GY/BN
5
X117
309 GY/BN
E
X120
E13RA Headlamp Assembly - Right
309 YE
309 YE
E4T Park/Turn Signal Lamp - Right Upper
E4R Park/Turn Signal Lamp - Right Lower

## Power Distribution Schematics (F34UA Fuse)

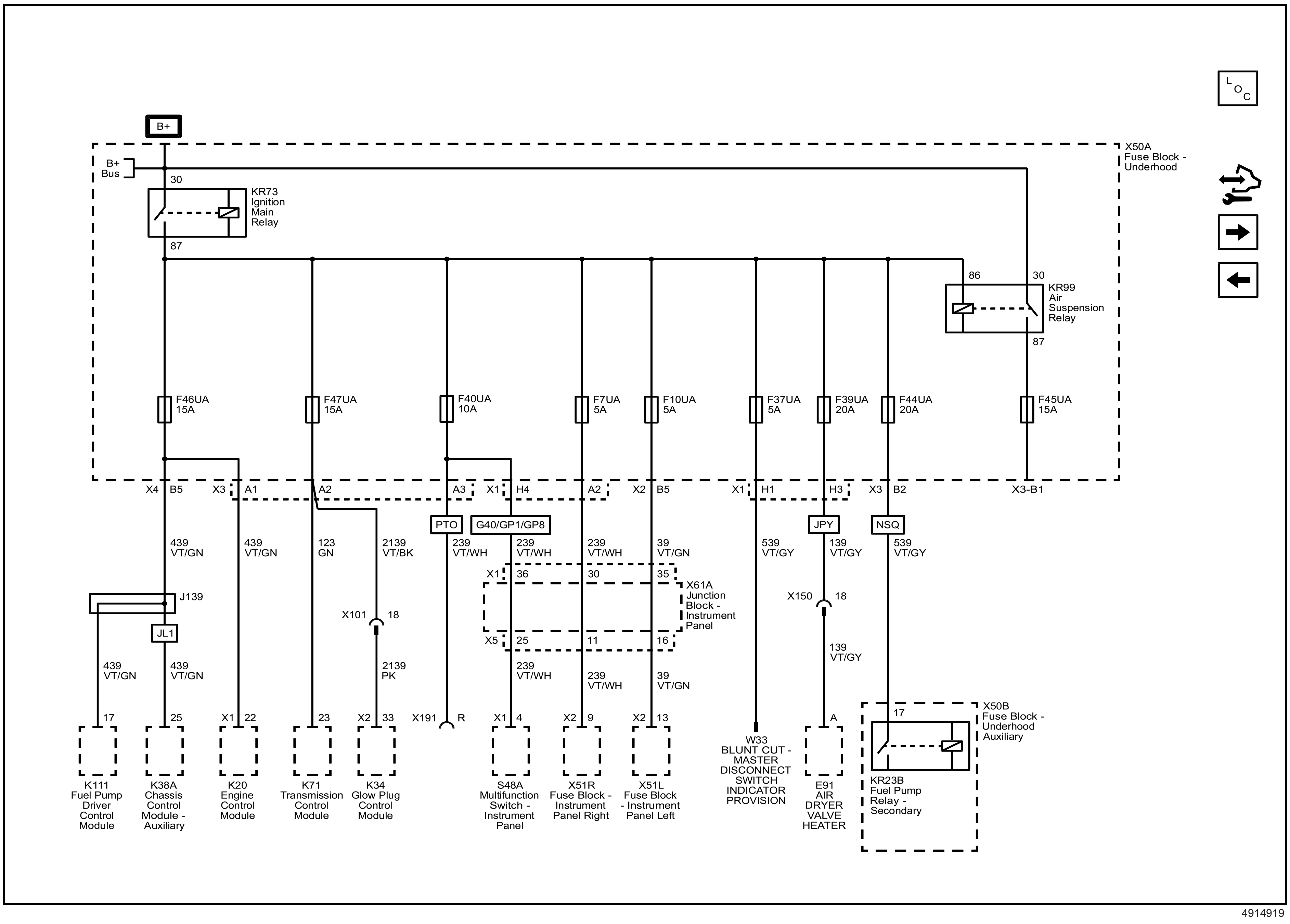

L O C
X50A
Fuse Block -
Underhood
KR53
Park
Lamps
Relay
B
F34UA
15A
X4
A2
X2
H3
H2
709
VT/GY
-5DX/5DY
5DX/5DY
J423
5DX
5DY
X401
3
D
X405
8
X455
8
X495
8
E42L
Tail Lamp
Assembly -
Left
UGE
TR1
E5S
Tail/Stop
and Turn
Signal
Lamp - Left
E5S
Tail/Stop
and Turn
Signal
Lamp - Left
X1
15
X51R
Fuse Block -
Instrument
Panel Right
X3
8
J292
1
E3A
Roof
Clearance
Lamp -
Left Front
Outer
E3C
Roof
Clearance
Lamp -
Front
Middle
E3E
Roof
Clearance
Lamp -
Right Front
Outer
DPN
X500
11
X510
1
A9A
Outside
Rearview
Mirror -
Driver
E2LM
Side
Marker
Lamp -
Left Middle
X150
11
X109
2
-UNL
UNL
X111
E
J116
X107
5
X110
E
709
YE
E13LA
Headlamp
Assembly -
Left
E4S
Park/Turn
Signal
Lamp -
Left Upper
E4Q
Park/Turn
Signal
Lamp -
Left Lower

4914911

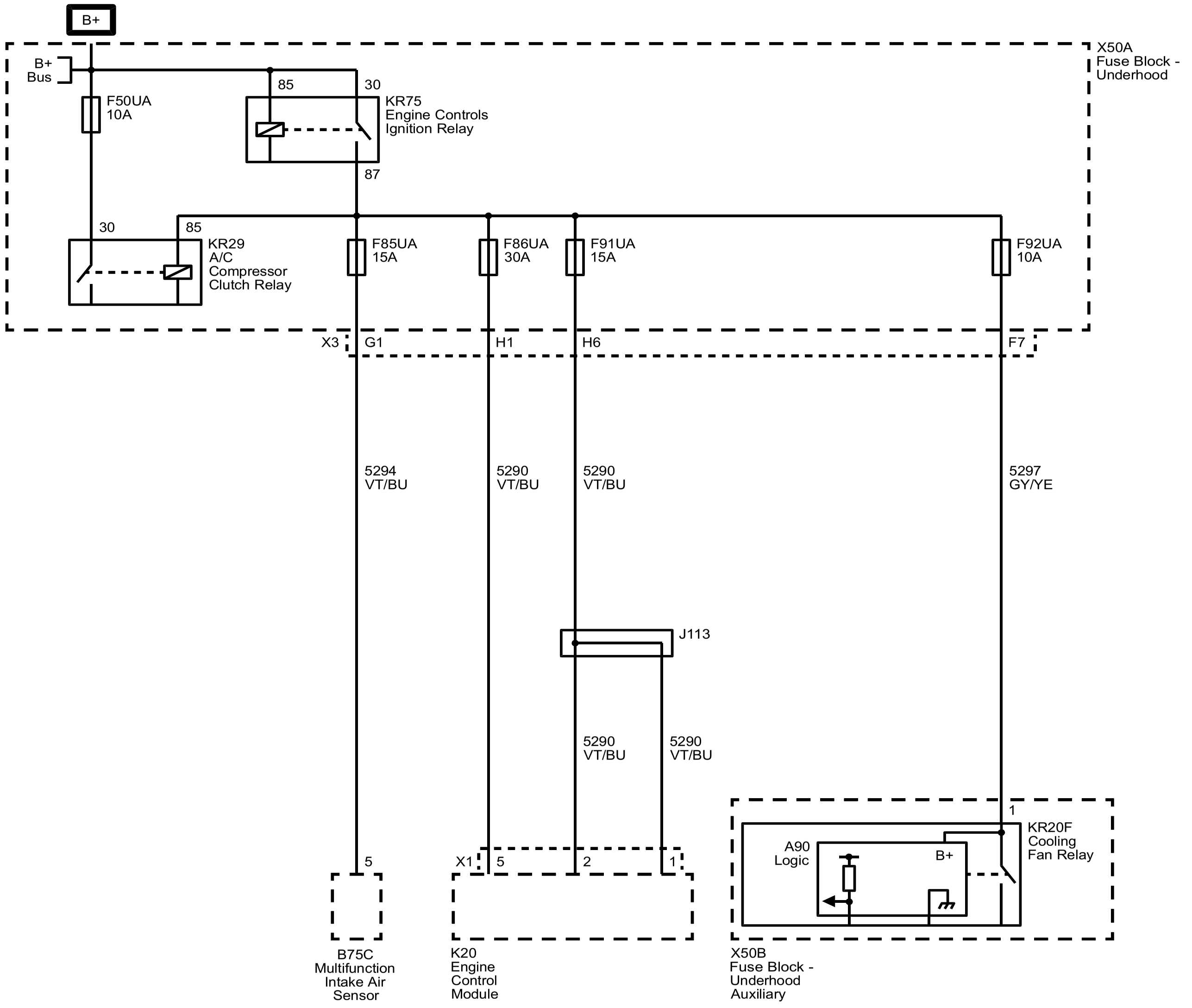
## Power Distribution Schematics (F8UA, F53UA, F54UA and F55UA Fuses)


4914913
LOC
B+
B+ BUS
X50A Fuse Block - Underhood
KR46 Front Fog Lamp Relay
KR59 Stop Lamp Relay
KR40 Backup Lamp Relay
F8UA 15A
F53UA 15A
F54UA 10A
F55UA 10A
X2 B3
X4 A1
X2 G2
X4 B1
B2
2234 BN/VT
T3U
12
X150
J101
1
X108
X118
E29LF Fog Lamp - Left Front
E29RF Fog Lamp - Right Front
1054 VT/GY
5DX/5DY
-5DX/5DY
8
X138
X2 33
X2 15
X61A Junction Block - Instrument Panel
X3 35
X3 13
24 GN/RD
2
X317
E6 Center High Mounted Stop Lamp
A10 Inside Rearview Mirror
DD8
J411
5DX
5
X405
24 GN/WH
5DY
X455
X495
J400
X401
A
E5A Backup Lamp - Left
E42L Tail Lamp Assembly - Left
14
X402
E5B Backup Lamp - Right
E42R Tail Lamp Assembly - Right
UZF
4
1624 WH/GN
P3 Backup Alarm
UY7
7
X88 Trailer Connector

# Power Distribution Schematics (F7UA, F10UA, F37UA, F39UA, F40UA, F44UA, F45UA, F46UA and F47UA Fuses)

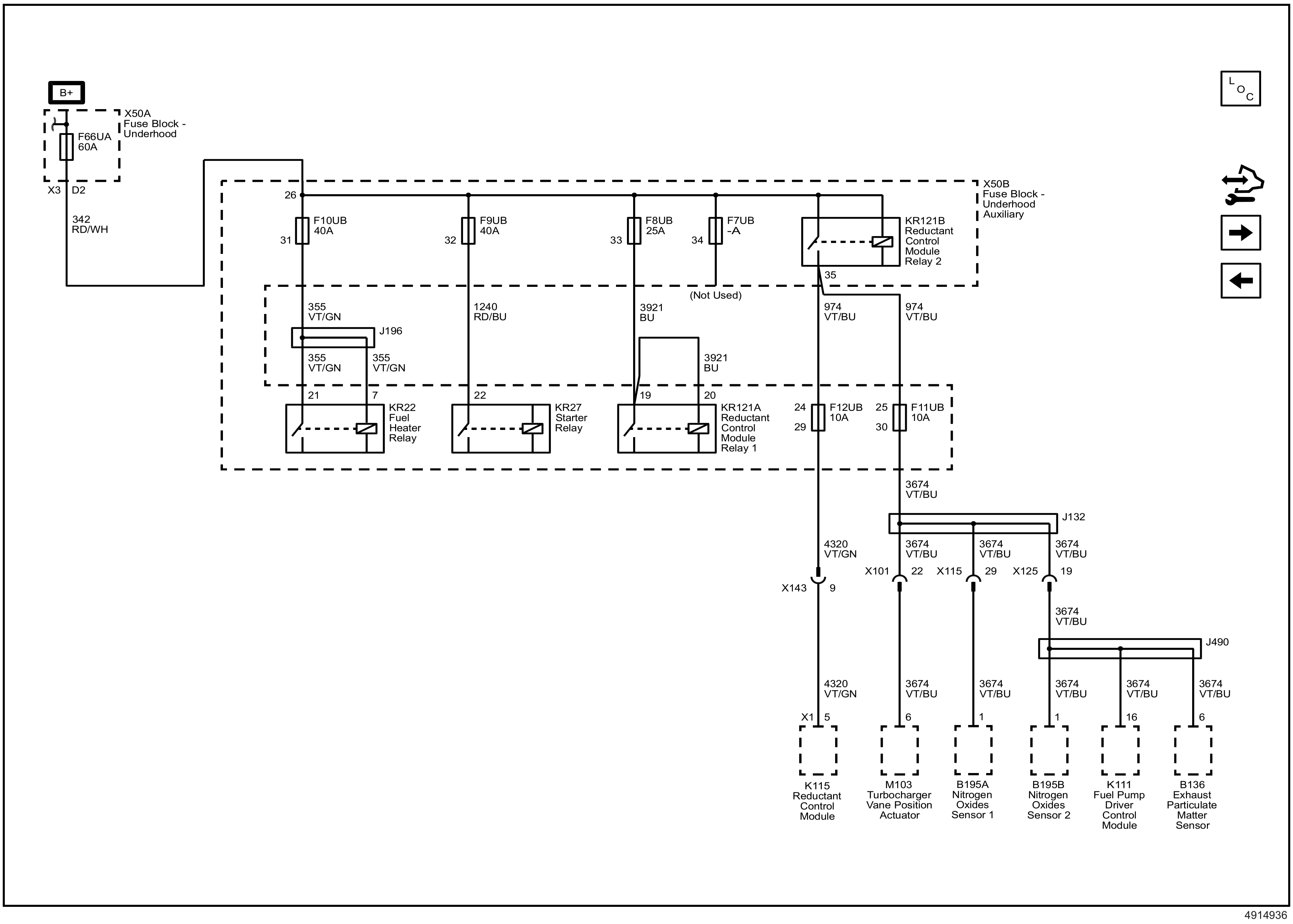

B+
B+ Bus
X50A Fuse Block - Underhood
30
KR73 Ignition Main Relay
87
86
30
KR99 Air Suspension Relay
87
F46UA 15A
F47UA 15A
F40UA 10A
F7UA 5A
F10UA 5A
F37UA 5A
F39UA 20A
F44UA 20A
F45UA 15A
X4 B5
X3 A1
A2
A3
X1 H4
A2
X2 B5
X1 H1
H3
X3 B2
X3-B1
PTO
G40/GP1/GP8
JPY
NSQ
439 VT/GN
439 VT/GN
123 GN
2139 VT/BK
239 VT/WH
239 VT/WH
239 VT/WH
39 VT/GN
539 VT/GY
139 VT/GY
539 VT/GY
X1 36
30
35
X61A Junction Block - Instrument Panel
X5 25
11
16
J139
JL1
X101 18
X150 18
439 VT/GN
439 VT/GN
2139 PK
239 VT/WH
239 VT/WH
39 VT/GN
139 VT/GY
17
25
X1 22
23
X2 33
X191 R
X1 4
X2 9
X2 13
A
17
X50B Fuse Block - Underhood Auxiliary
K111 Fuel Pump Driver Control Module
K38A Chassis Control Module - Auxiliary
K20 Engine Control Module
K71 Transmission Control Module
K34 Glow Plug Control Module
S48A Multifunction Switch - Instrument Panel
X51R Fuse Block - Instrument Panel Right
X51L Fuse Block - Instrument Panel Left
W33 BLUNT CUT - MASTER DISCONNECT SWITCH INDICATOR PROVISION
E91 AIR DRYER VALVE HEATER
KR23B Fuel Pump Relay - Secondary
L O C
4914919

## Power Distribution Schematics (F85UA, F86UA, F91UA and F92UA Fuses)

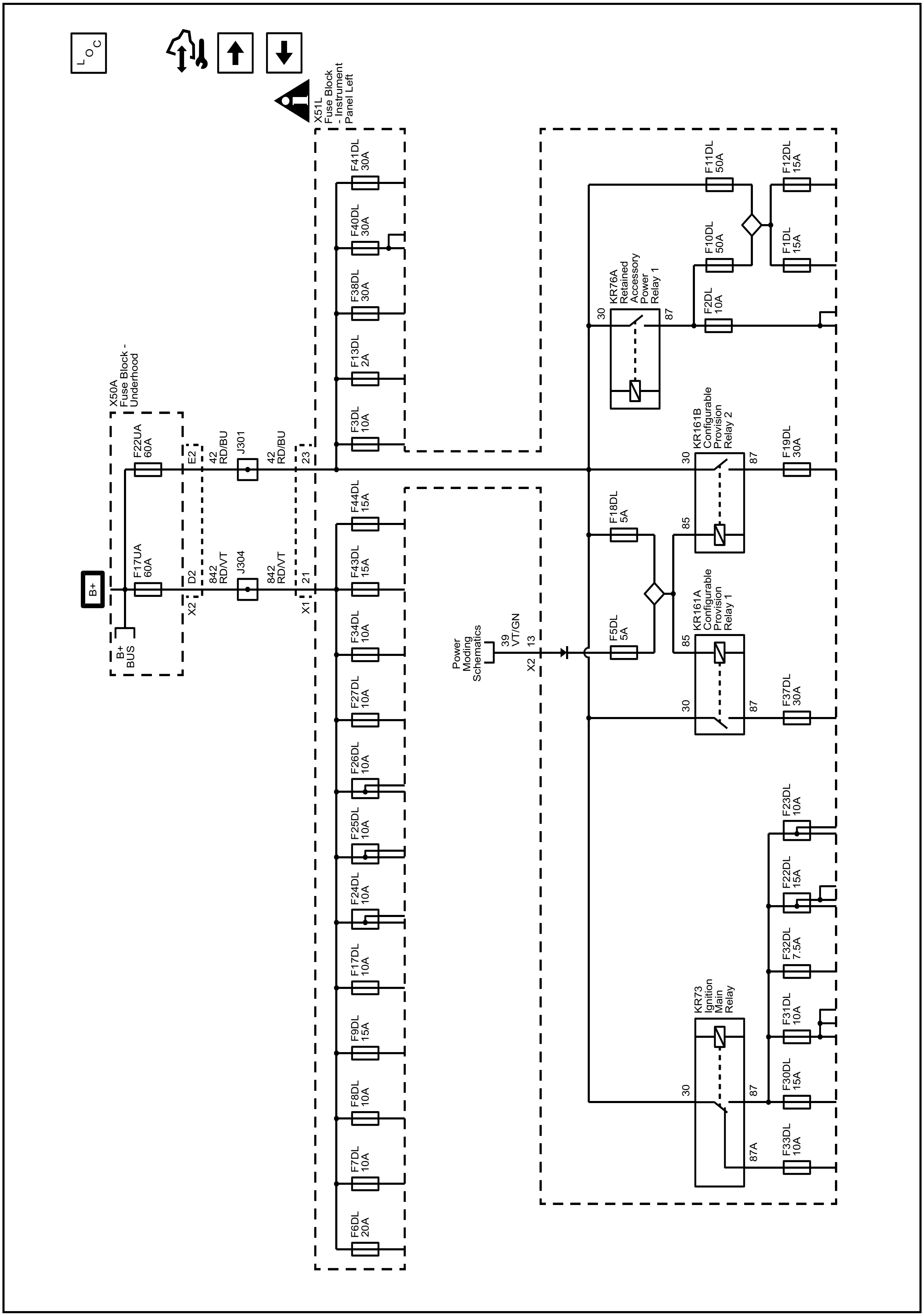

B+
B+ Bus
X50A Fuse Block - Underhood
F50UA 10A
85
30
KR75 Engine Controls Ignition Relay
87
30
85
KR29 A/C Compressor Clutch Relay
F85UA 15A
F86UA 30A
F91UA 15A
F92UA 10A
X3
G1
H1
H6
F7
5294 VT/BU
5290 VT/BU
5290 VT/BU
5297 GY/YE
J113
5290 VT/BU
5290 VT/BU
1
KR20F Cooling Fan Relay
A90 Logic
B+
5
X1
5
2
1
B75C Multifunction Intake Air Sensor
K20 Engine Control Module
X50B Fuse Block - Underhood Auxiliary

4914930

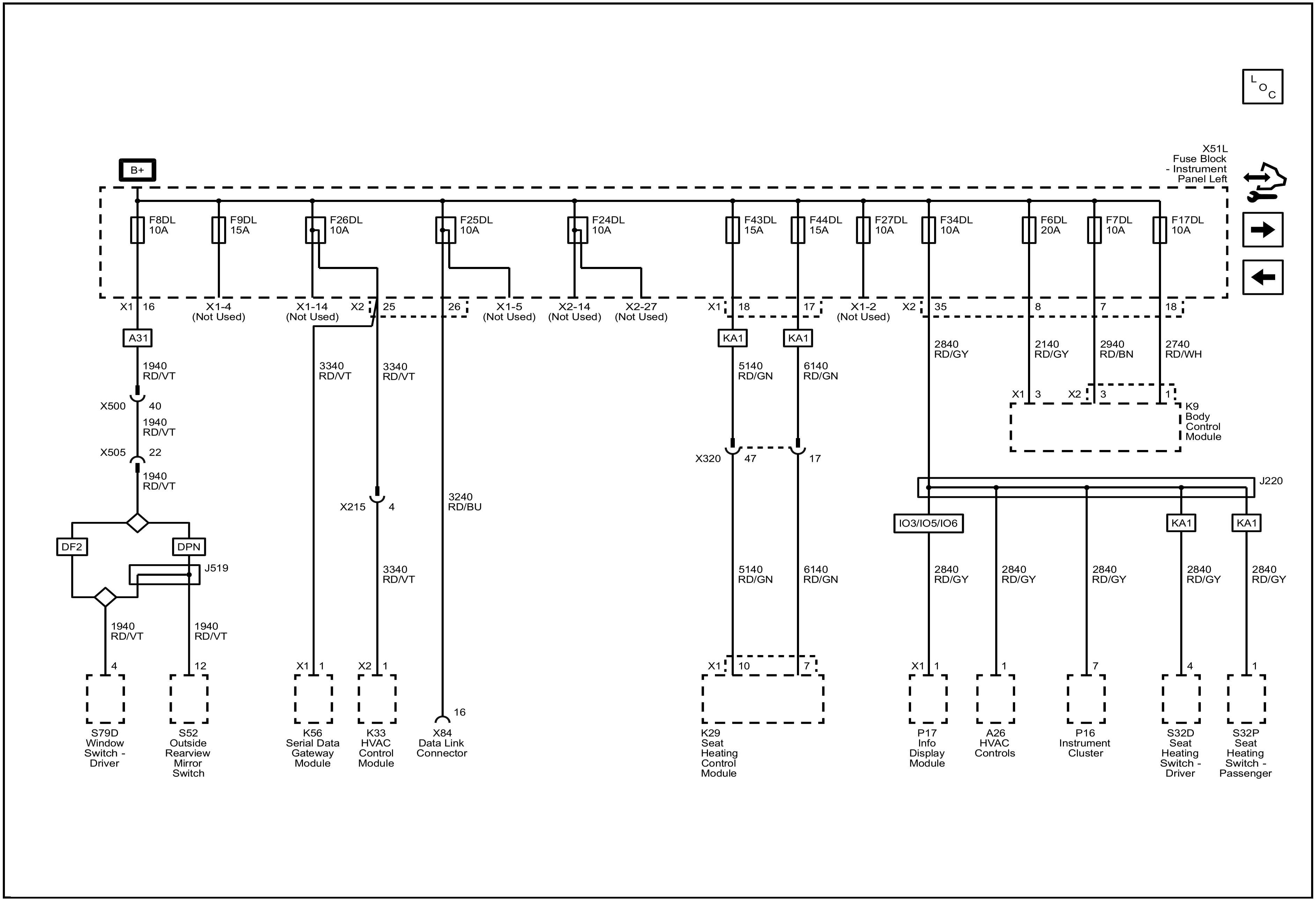
## Power Distribution Schematics (F7UB, F8UB, F9UB, F10UB, F11UB and F12UB Fuses)


L O C
B+
X50A
Fuse Block - Underhood
F66UA
60A
X3
D2
342
RD/WH
X50B
Fuse Block - Underhood Auxiliary
26
F10UB
40A
31
F9UB
40A
32
F8UB
25A
33
F7UB
-A
34
KR121B
Reductant Control Module Relay 2
35
(Not Used)
355
VT/GN
J196
355
VT/GN
355
VT/GN
1240
RD/BU
3921
BU
3921
BU
974
VT/BU
974
VT/BU
21
7
KR22
Fuel Heater Relay
22
KR27
Starter Relay
19
20
KR121A
Reductant Control Module Relay 1
24
29
F12UB
10A
25
30
F11UB
10A
3674
VT/BU
J132
4320
VT/GN
X143
9
3674
VT/BU
X101
22
3674
VT/BU
X115
29
3674
VT/BU
X125
19
3674
VT/BU
J490
4320
VT/GN
X1
5
3674
VT/BU
6
3674
VT/BU
1
3674
VT/BU
1
3674
VT/BU
16
3674
VT/BU
6
K115
Reductant Control Module
M103
Turbocharger Vane Position Actuator
B195A
Nitrogen Oxides Sensor 1
B195B
Nitrogen Oxides Sensor 2
K111
Fuel Pump Driver Control Module
B136
Exhaust Particulate Matter Sensor
4914936

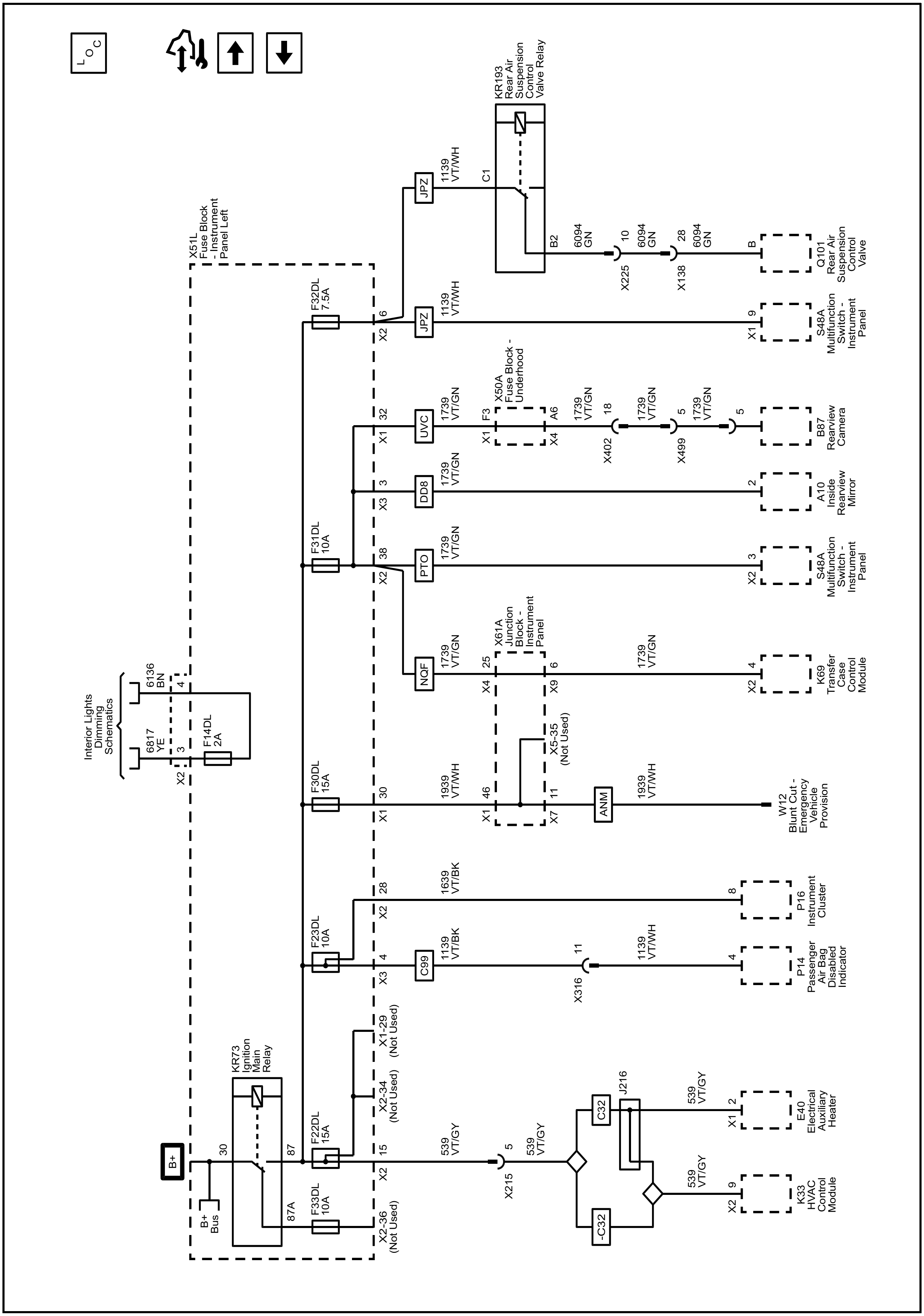
## Power Distribution Schematics (B+ Bus X51L Fuse Block - Instrument Panel Left)


4914941
B+
B+ BUS
X50A Fuse Block - Underhood
F22UA 60A
F17UA 60A
E2
D2
X2
42 RD/BU
842 RD/VT
J301
J304
23
21
X1
X51L Fuse Block - Instrument Panel Left
F41DL 30A
F40DL 30A
F38DL 30A
F13DL 2A
F3DL 10A
F44DL 15A
F43DL 15A
F34DL 10A
F27DL 10A
F26DL 10A
F25DL 10A
F24DL 10A
F17DL 10A
F9DL 15A
F8DL 10A
F7DL 10A
F6DL 20A
Power Moding Schematics
39 VT/GN
13
X2
KR76A Retained Accessory Power Relay 1
30
87
F11DL 50A
F10DL 50A
F12DL 15A
F1DL 15A
F2DL 10A
KR161B Configurable Provision Relay 2
30
85
87
F19DL 30A
F18DL 5A
F5DL 5A
KR161A Configurable Provision Relay 1
85
30
87
F37DL 30A
F23DL 10A
F22DL 15A
F32DL 7.5A
F31DL 10A
F30DL 15A
F33DL 10A
KR73 Ignition Main Relay
30
87
87A

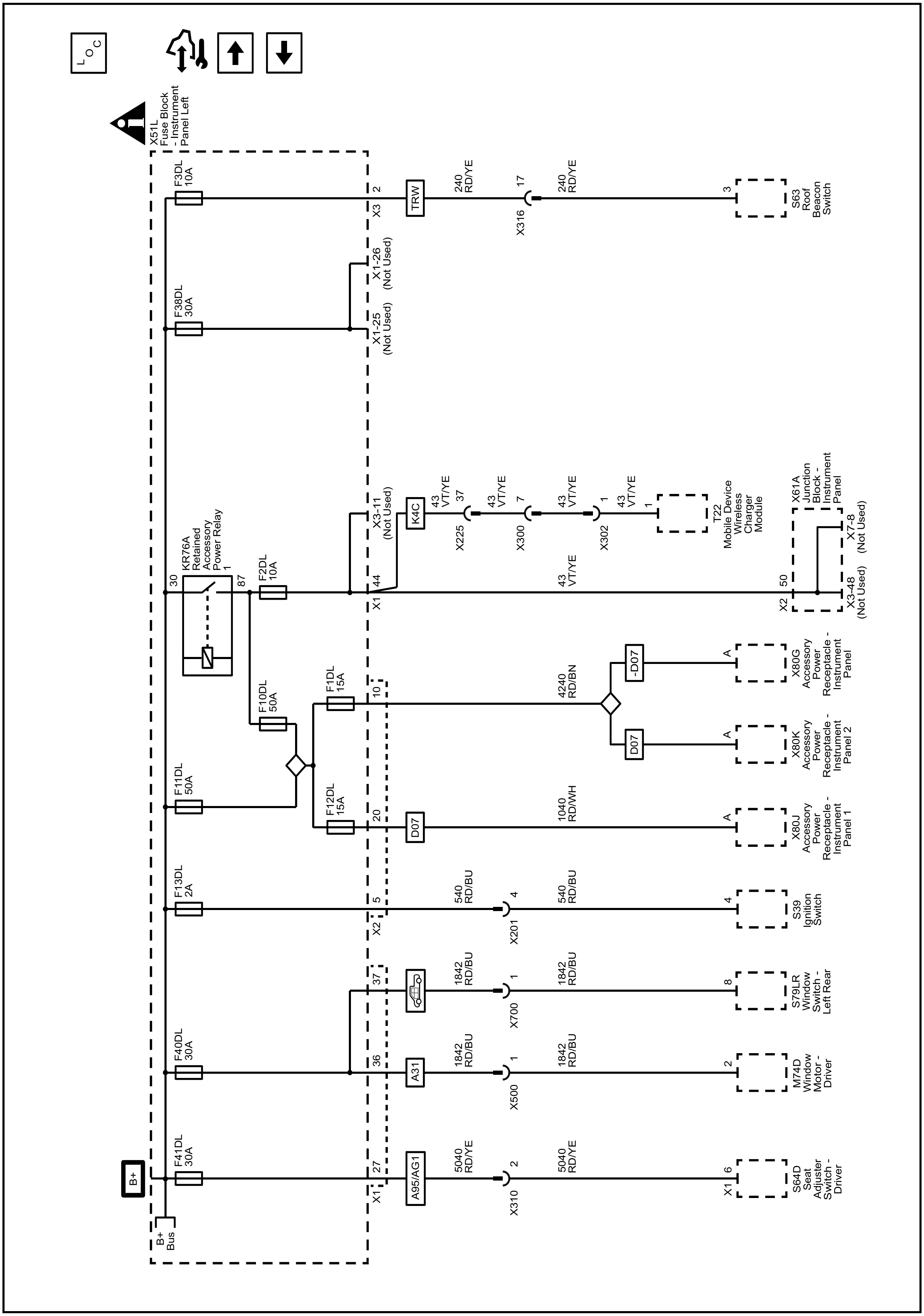
# Power Distribution Schematics (F6DL, F7DL, F8DL, F9DL, F17DL, F24DL, F25DL, F26DL, F34DL, F43DL and F44DL Fuses)


L O C
X51L
Fuse Block
- Instrument
Panel Left
B+
F8DL 10A
F9DL 15A
F26DL 10A
F25DL 10A
F24DL 10A
F43DL 15A
F44DL 15A
F27DL 10A
F34DL 10A
F6DL 20A
F7DL 10A
F17DL 10A
X1 16
X1-4 (Not Used)
X1-14 (Not Used)
X2 25
26
X1-5 (Not Used)
X2-14 (Not Used)
X2-27 (Not Used)
X1 18
17
X1-2 (Not Used)
X2 35
8
7
18
A31
1940 RD/VT
X500 40
1940 RD/VT
X505 22
1940 RD/VT
DF2
DPN
J519
1940 RD/VT
1940 RD/VT
4
12
S79D Window Switch - Driver
S52 Outside Rearview Mirror Switch
3340 RD/VT
3340 RD/VT
X215 4
3340 RD/VT
3240 RD/BU
X1 1
X2 1
16
K56 Serial Data Gateway Module
K33 HVAC Control Module
X84 Data Link Connector
KA1
KA1
5140 RD/GN
6140 RD/GN
X320 47
17
5140 RD/GN
6140 RD/GN
X1 10
7
K29 Seat Heating Control Module
2840 RD/GY
2140 RD/GY
2940 RD/BN
2740 RD/WH
X1 3
X2 3
1
K9 Body Control Module
J220
IO3/IO5/IO6
KA1
KA1
2840 RD/GY
2840 RD/GY
2840 RD/GY
2840 RD/GY
2840 RD/GY
X1 1
1
7
4
1
P17 Info Display Module
A26 HVAC Controls
P16 Instrument Cluster
S32D Seat Heating Switch - Driver
S32P Seat Heating Switch - Passenger
4914946

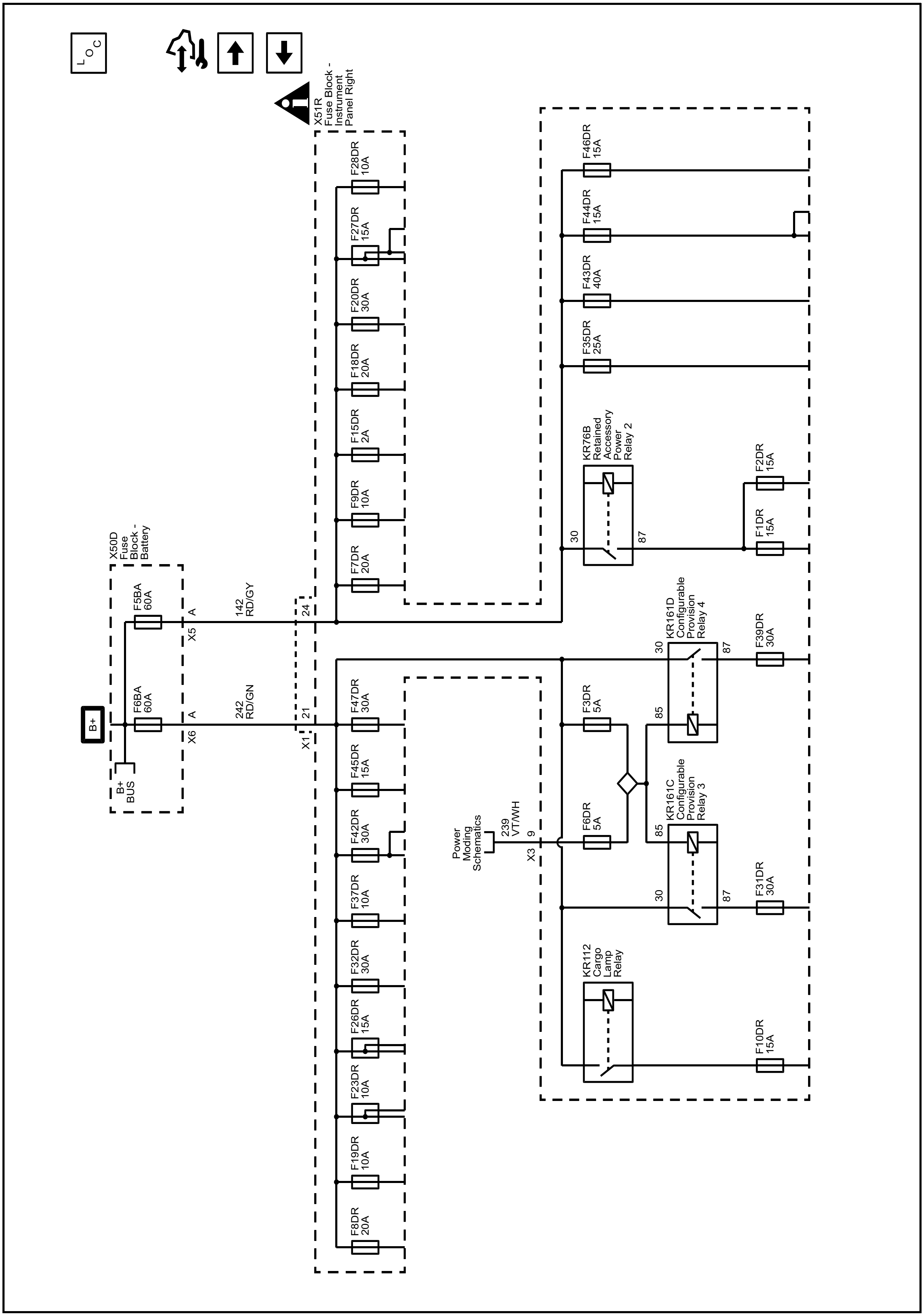
## Power Distribution Schematics (F14DL, F22DL, F23DL, F30DL, F31DL, F32DL and F33DL Fuses)


4914949
B+
B+ Bus
30
87
87A
KR73 Ignition Main Relay
X51L Fuse Block - Instrument Panel Left
F33DL 10A
X2-36 (Not Used)
F22DL 15A
X2 15
X2-34 (Not Used)
X1-29 (Not Used)
539 VT/GY
X215 5
C32
-C32
J216
X1 2
E40 Electrical Auxiliary Heater
X2 9
K33 HVAC Control Module
F23DL 10A
X3 4
C99
1139 VT/BK
X316 11
1139 VT/WH
4
P14 Passenger Air Bag Disabled Indicator
X2 28
1639 VT/BK
8
P16 Instrument Cluster
F30DL 15A
X1 30
1939 VT/WH
X61A Junction Block - Instrument Panel
X1 46
X7 11
X5-35 (Not Used)
ANM
W12 Blunt Cut - Emergency Vehicle Provision
F14DL 2A
X2 3
4
6817 YE
6136 BN
Interior Lights Dimming Schematics
F31DL 10A
X2 38
NQF
1739 VT/GN
X4 25
X9 6
X2 4
K69 Transfer Case Control Module
PTO
X2 3
S48A Multifunction Switch - Instrument Panel
X3 3
DD8
2
A10 Inside Rearview Mirror
X1 32
UVC
X50A Fuse Block - Underhood
X1 F3
X4 A6
X402 18
X499 5
5
B87 Rearview Camera
F32DL 7.5A
X2 6
JPZ
X1 9
S48A Multifunction Switch - Instrument Panel
C1
KR193 Rear Air Suspension Control Valve Relay
B2
6094 GN
X225 10
X138 28
B
Q101 Rear Air Suspension Control Valve

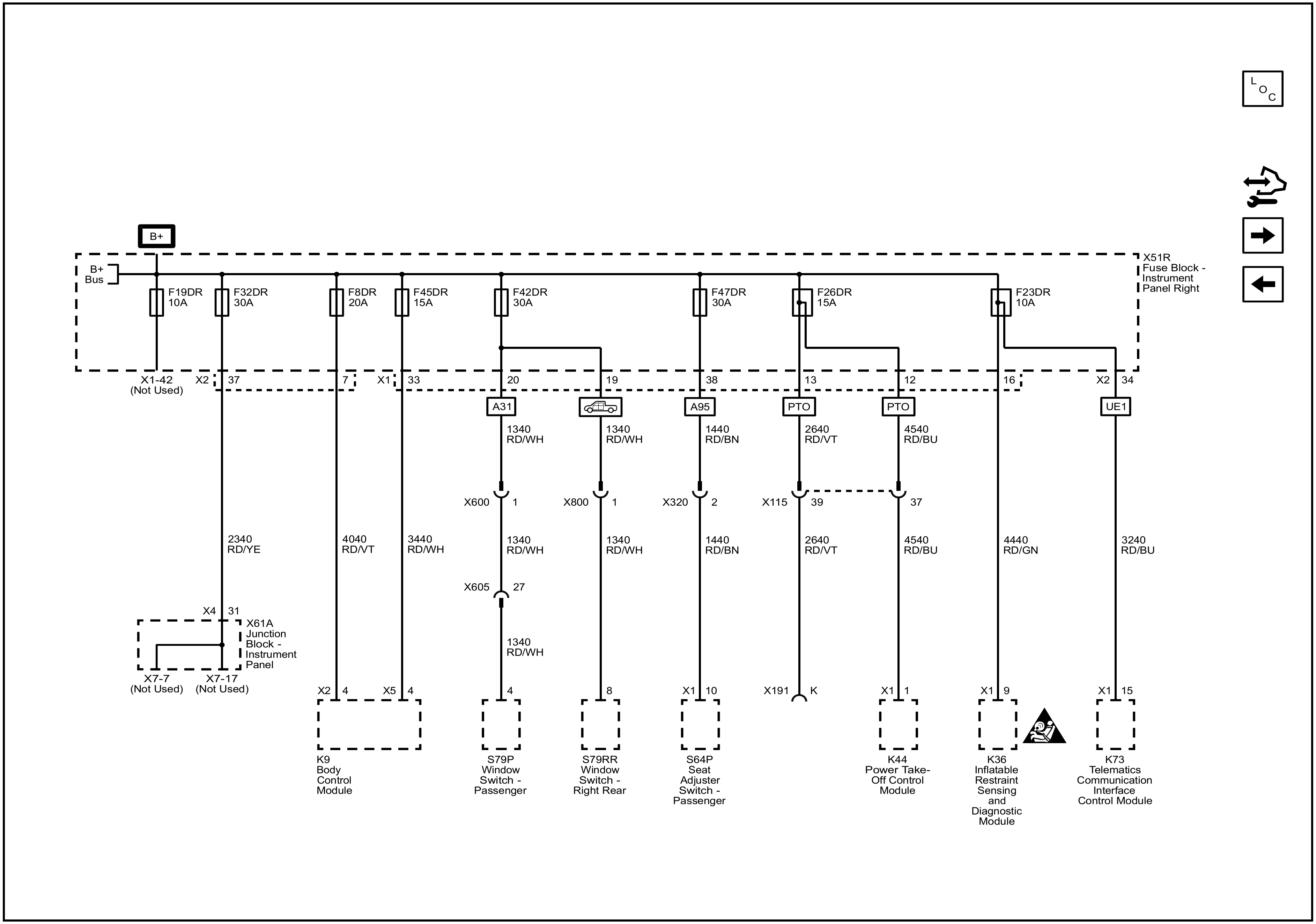
## Power Distribution Schematics (F1DL, F2DL, F3DL, F10DL, F11DL, F12DL, F13DL, F38DL, F40DL and F41DL Fuses)


L O C
X51L Fuse Block - Instrument Panel Left
B+ Bus
B+
F41DL 30A
F40DL 30A
F13DL 2A
F11DL 50A
F10DL 50A
F12DL 15A
F1DL 15A
F2DL 10A
F38DL 30A
F3DL 10A
KR76A Retained Accessory Power Relay 1
30
87
X1 27
36
37
X2 5
20
10
X1 44
X3-11 (Not Used)
X1-25 (Not Used)
X1-26 (Not Used)
X3 2
A95/AG1
A31
D07
-D07
K4C
TRW
5040 RD/YE
1842 RD/BU
540 RD/BU
1040 RD/WH
4240 RD/BN
43 VT/YE
240 RD/YE
X310 2
X500 1
X700 1
X201 4
X225 37
X300 7
X302 1
X316 17
X1 6
S64D Seat Adjuster Switch - Driver
2
M74D Window Motor - Driver
8
S79LR Window Switch - Left Rear
4
S39 Ignition Switch
A
X80J Accessory Power Receptacle - Instrument Panel 1
A
X80K Accessory Power Receptacle - Instrument Panel 2
A
X80G Accessory Power Receptacle - Instrument Panel
X2 50
X3-48 (Not Used)
X7-8 (Not Used)
X61A Junction Block - Instrument Panel
1
T22 Mobile Device Wireless Charger Module
3
S63 Roof Beacon Switch
4914950

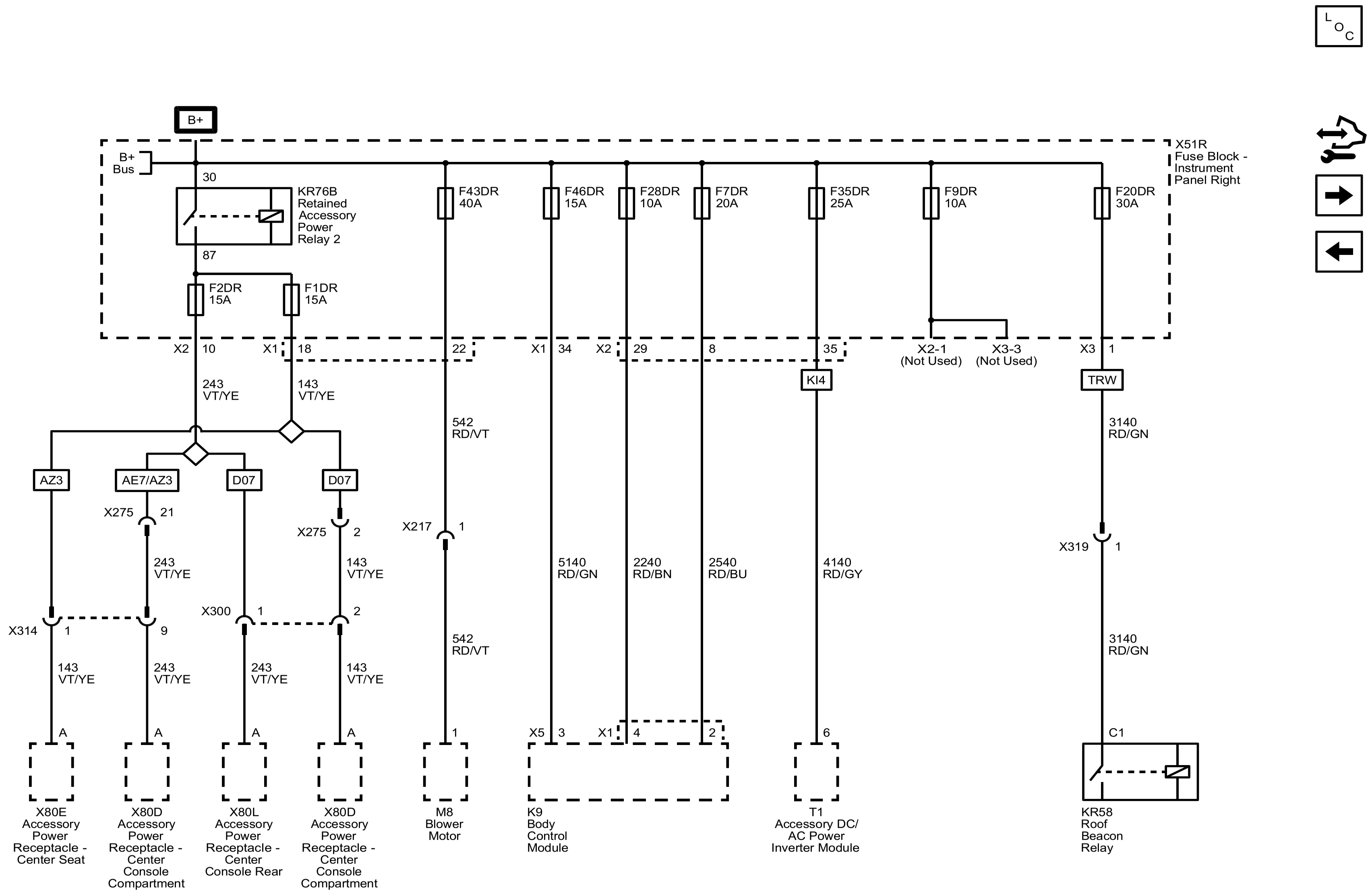
## Power Distribution Schematics (B+ Bus X51R Fuse Block - Instrument Panel Right)


4914954
L O C
X51R Fuse Block - Instrument Panel Right
X50D Fuse Block - Battery
B+
B+ BUS
F5BA 60A
F6BA 60A
X5 A
X6 A
142 RD/GY
242 RD/GN
24
21
X1
F28DR 10A
F27DR 15A
F20DR 30A
F18DR 20A
F15DR 2A
F9DR 10A
F7DR 20A
F47DR 30A
F45DR 15A
F42DR 30A
F37DR 10A
F32DR 30A
F26DR 15A
F23DR 10A
F19DR 10A
F8DR 20A
F46DR 15A
F44DR 15A
F43DR 40A
F35DR 25A
KR76B Retained Accessory Power Relay 2
30
87
F2DR 15A
F1DR 15A
KR161D Configurable Provision Relay 4
30
87
85
F39DR 30A
F3DR 5A
F6DR 5A
Power Moding Schematics
239 VT/WH
X3 9
KR161C Configurable Provision Relay 3
85
30
87
F31DR 30A
KR112 Cargo Lamp Relay
F10DR 15A

# Power Distribution Schematics (F8DR, F23DR, F26DR, F32DR, F42DR, F45DR and F47DR Fuses)

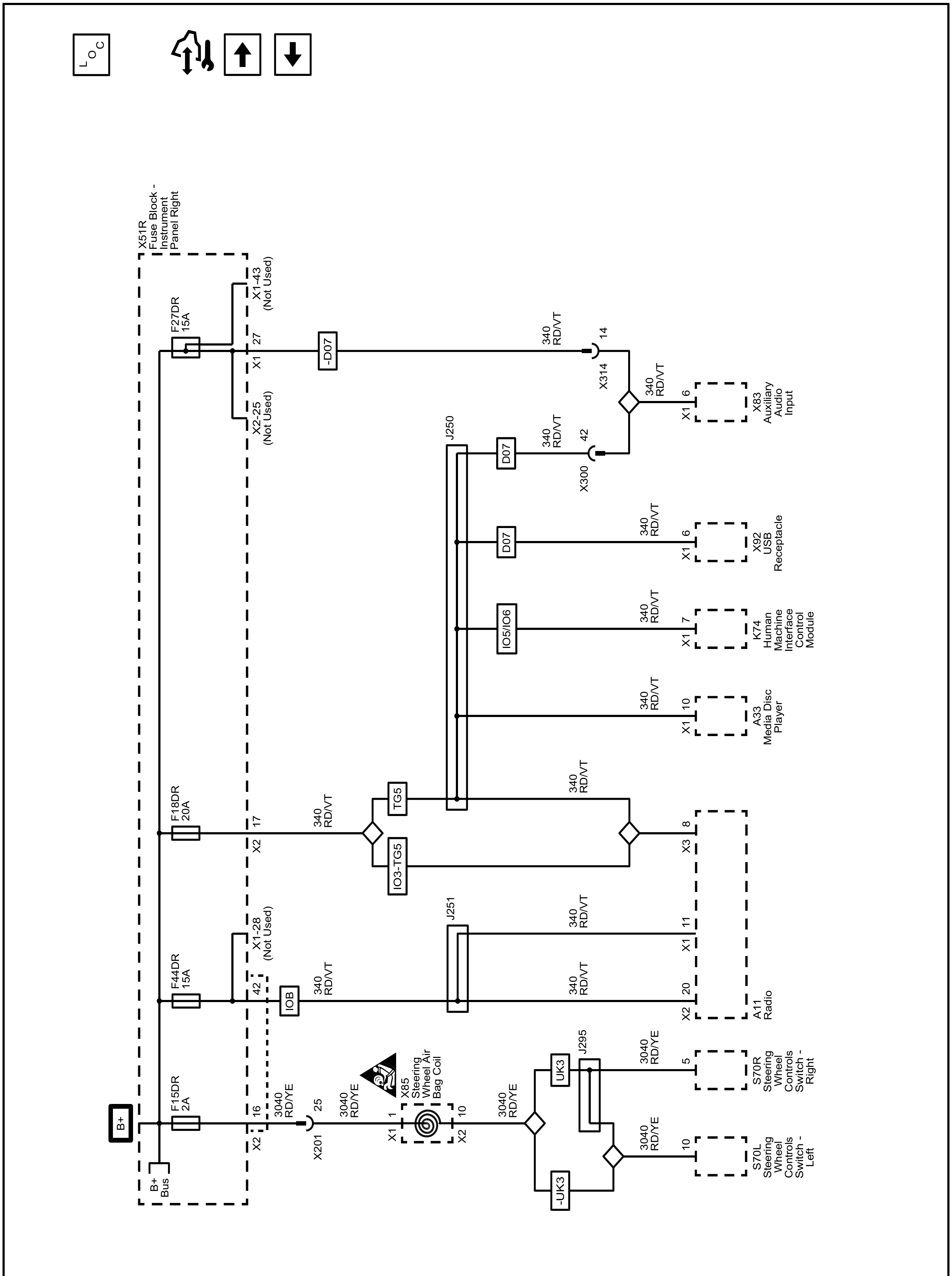

L O C
B+
B+ Bus
X51R Fuse Block - Instrument Panel Right
F19DR 10A
F32DR 30A
F8DR 20A
F45DR 15A
F42DR 30A
F47DR 30A
F26DR 15A
F23DR 10A
X1-42 (Not Used)
X2 37
7
X1 33
20
19
38
13
12
16
X2 34
A31
A95
PTO
PTO
UE1
1340 RD/WH
1340 RD/WH
1440 RD/BN
2640 RD/VT
4540 RD/BU
X600 1
X800 1
X320 2
X115 39
37
2340 RD/YE
4040 RD/VT
3440 RD/WH
1340 RD/WH
1340 RD/WH
1440 RD/BN
2640 RD/VT
4540 RD/BU
4440 RD/GN
3240 RD/BU
X605 27
1340 RD/WH
X4 31
X61A Junction Block - Instrument Panel
X7-7 (Not Used)
X7-17 (Not Used)
X2 4
X5 4
4
8
X1 10
X191 K
X1 1
X1 9
X1 15
K9 Body Control Module
S79P Window Switch - Passenger
S79RR Window Switch - Right Rear
S64P Seat Adjuster Switch - Passenger
K44 Power Take-Off Control Module
K36 Inflatable Restraint Sensing and Diagnostic Module
K73 Telematics Communication Interface Control Module
4914957

## Power Distribution Schematics (F1DR, F2DR, F7DR, F9DR, F20DR, F28DR, F35DR, F43DR, F44DR and F46DR Fuses)

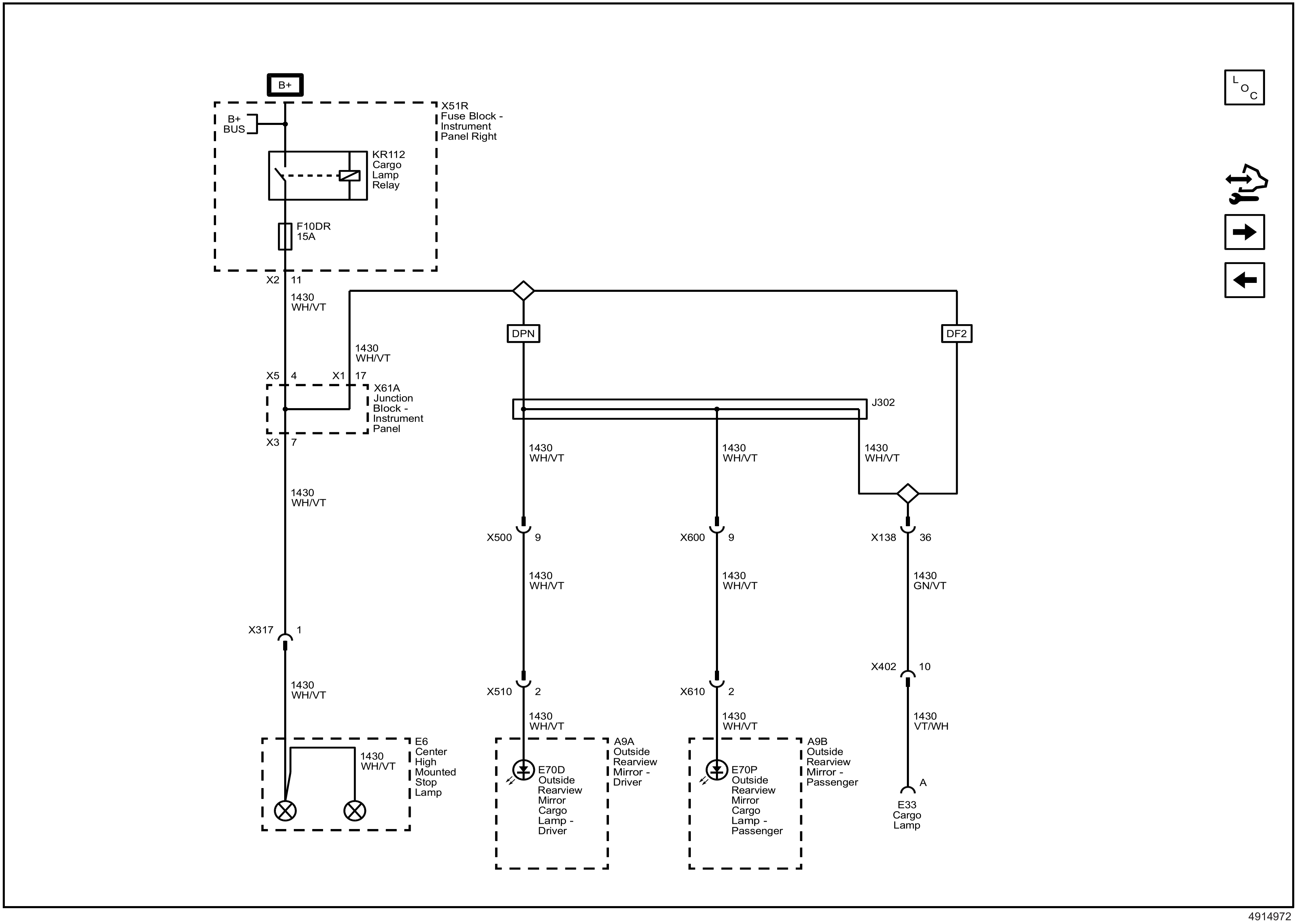

L O C
B+
B+ Bus
X51R Fuse Block - Instrument Panel Right
30
KR76B Retained Accessory Power Relay 2
87
F2DR 15A
F1DR 15A
F43DR 40A
F46DR 15A
F28DR 10A
F7DR 20A
F35DR 25A
F9DR 10A
F20DR 30A
X2 10
X1 18
22
X1 34
X2 29
8
35
X2-1 (Not Used)
X3-3 (Not Used)
X3 1
KI4
TRW
243 VT/YE
143 VT/YE
542 RD/VT
3140 RD/GN
AZ3
AE7/AZ3
D07
D07
X275 21
X275 2
X217 1
X319 1
5140 RD/GN
2240 RD/BN
2540 RD/BU
4140 RD/GY
X314 1
9
X300 1
2
143 VT/YE
243 VT/YE
243 VT/YE
143 VT/YE
542 RD/VT
3140 RD/GN
A
1
X5 3
X1 4
2
6
C1
X80E Accessory Power Receptacle - Center Seat
X80D Accessory Power Receptacle - Center Console Compartment
X80L Accessory Power Receptacle - Center Console Rear
X80D Accessory Power Receptacle - Center Console Compartment
M8 Blower Motor
K9 Body Control Module
T1 Accessory DC/AC Power Inverter Module
KR58 Roof Beacon Relay

4914963

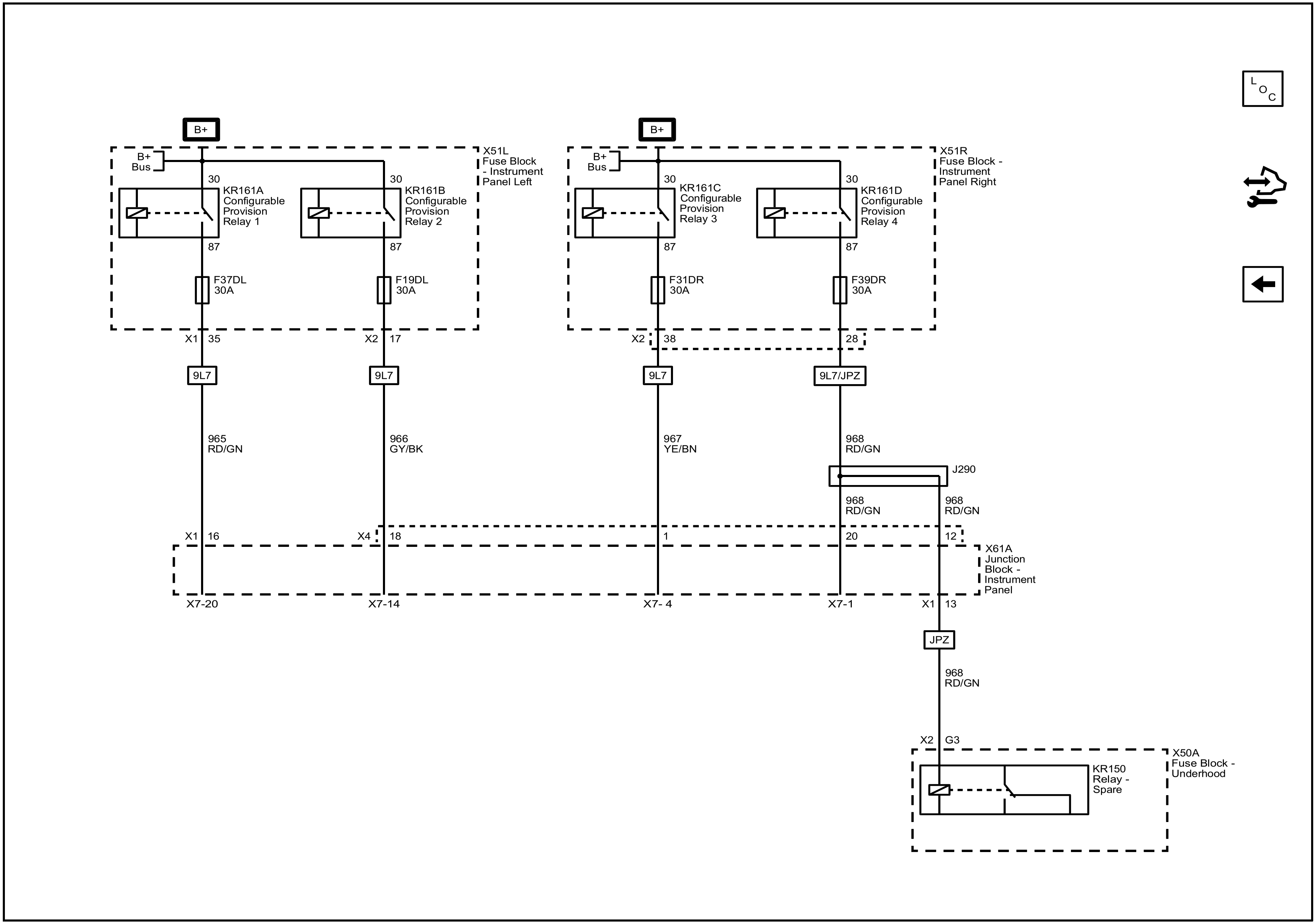
## Power Distribution Schematics (F15DR, F18DR, F27DR and F44DR Fuses)


4914971
B+
B+ Bus
X51R Fuse Block - Instrument Panel Right
F15DR 2A
F44DR 15A
F18DR 20A
F27DR 15A
X2 16
X2 42
X1-28 (Not Used)
X2 17
X2-25 (Not Used)
X1 27
X1-43 (Not Used)
3040 RD/YE
25
X201
X1 1
X2 10
X85 Steering Wheel Air Bag Coil
IOB
340 RD/VT
J251
IO3-TG5
TG5
J250
-D07
D07
IO5/IO6
X300
42
X314
14
UK3
-UK3
J295
X2 20
X1 11
X3 8
A11 Radio
X1 10
A33 Media Disc Player
X1 7
K74 Human Machine Interface Control Module
X1 6
X92 USB Receptacle
X83 Auxiliary Audio Input
5
S70R Steering Wheel Controls Switch - Right
10
S70L Steering Wheel Controls Switch - Left

## Power Distribution Schematics (F10DR Fuse)

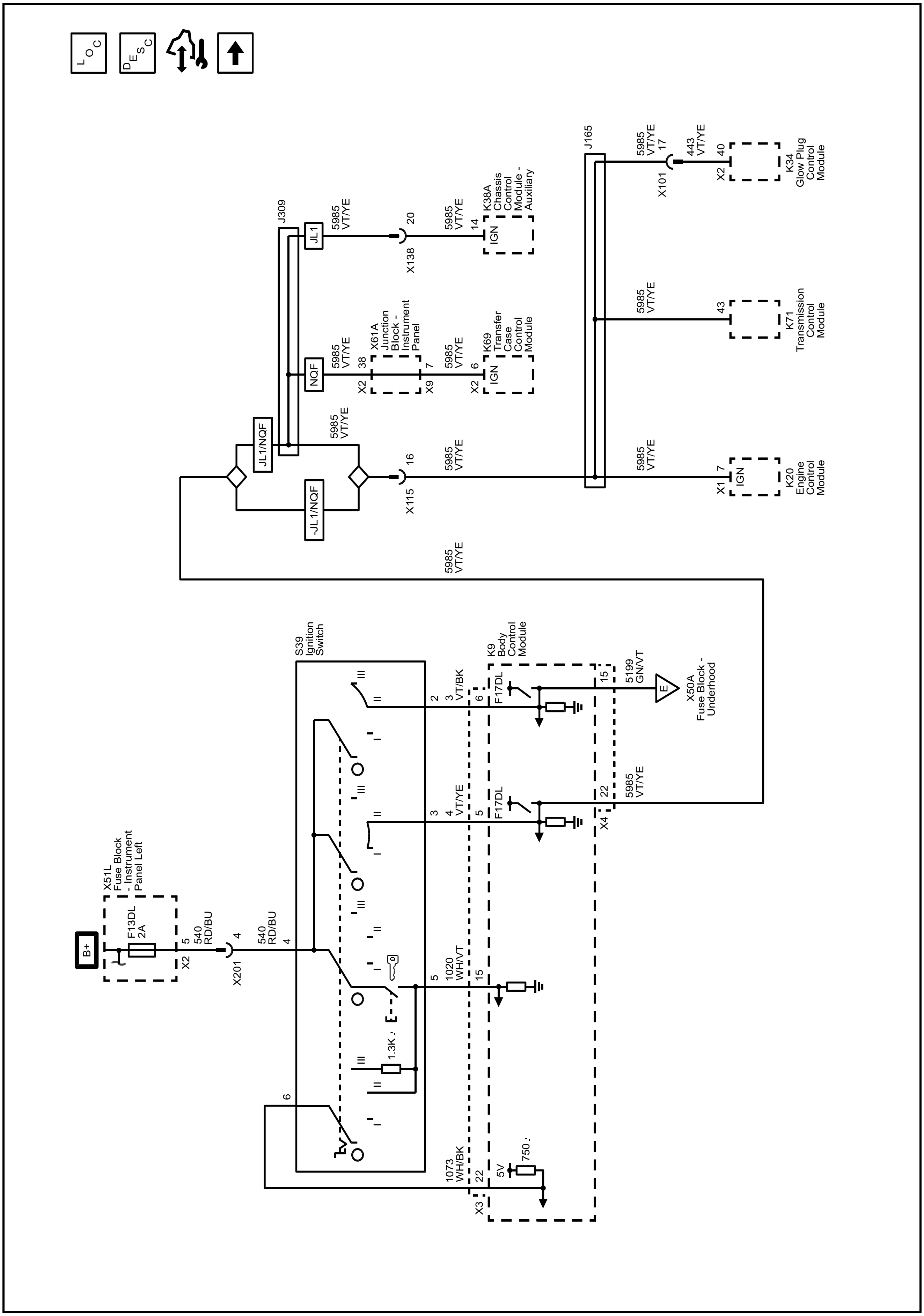

B+
B+ BUS
X51R Fuse Block - Instrument Panel Right
KR112 Cargo Lamp Relay
F10DR 15A
X2 11
1430 WH/VT
1430 WH/VT
X5 4
X1 17
X61A Junction Block - Instrument Panel
X3 7
1430 WH/VT
X317 1
1430 WH/VT
E6 Center High Mounted Stop Lamp
1430 WH/VT
DPN
DF2
J302
1430 WH/VT
1430 WH/VT
1430 WH/VT
X500 9
X600 9
X138 36
1430 WH/VT
1430 WH/VT
1430 GN/VT
X402 10
X510 2
X610 2
1430 WH/VT
1430 WH/VT
1430 VT/WH
A9A Outside Rearview Mirror - Driver
E70D Outside Rearview Mirror Cargo Lamp - Driver
A9B Outside Rearview Mirror - Passenger
E70P Outside Rearview Mirror Cargo Lamp - Passenger
A
E33 Cargo Lamp
4914972

## Power Distribution Schematics (F19DL, F31DR, F37DL and F39DR Fuses)



B+
B+ Bus
30
KR161A Configurable Provision Relay 1
87
F37DL 30A
X1 35
9L7
965 RD/GN
X1 16
X7-20
30
KR161B Configurable Provision Relay 2
87
F19DL 30A
X2 17
9L7
966 GY/BK
X4 18
X7-14
X51L Fuse Block - Instrument Panel Left
B+
B+ Bus
30
KR161C Configurable Provision Relay 3
87
F31DR 30A
X2 38
9L7
967 YE/BN
1
X7- 4
30
KR161D Configurable Provision Relay 4
87
F39DR 30A
28
9L7/JPZ
968 RD/GN
J290
968 RD/GN
20
X7-1
968 RD/GN
12
X1 13
X51R Fuse Block - Instrument Panel Right
X61A Junction Block - Instrument Panel
JPZ
968 RD/GN
X2 G3
KR150 Relay - Spare
X50A Fuse Block - Underhood
4914974

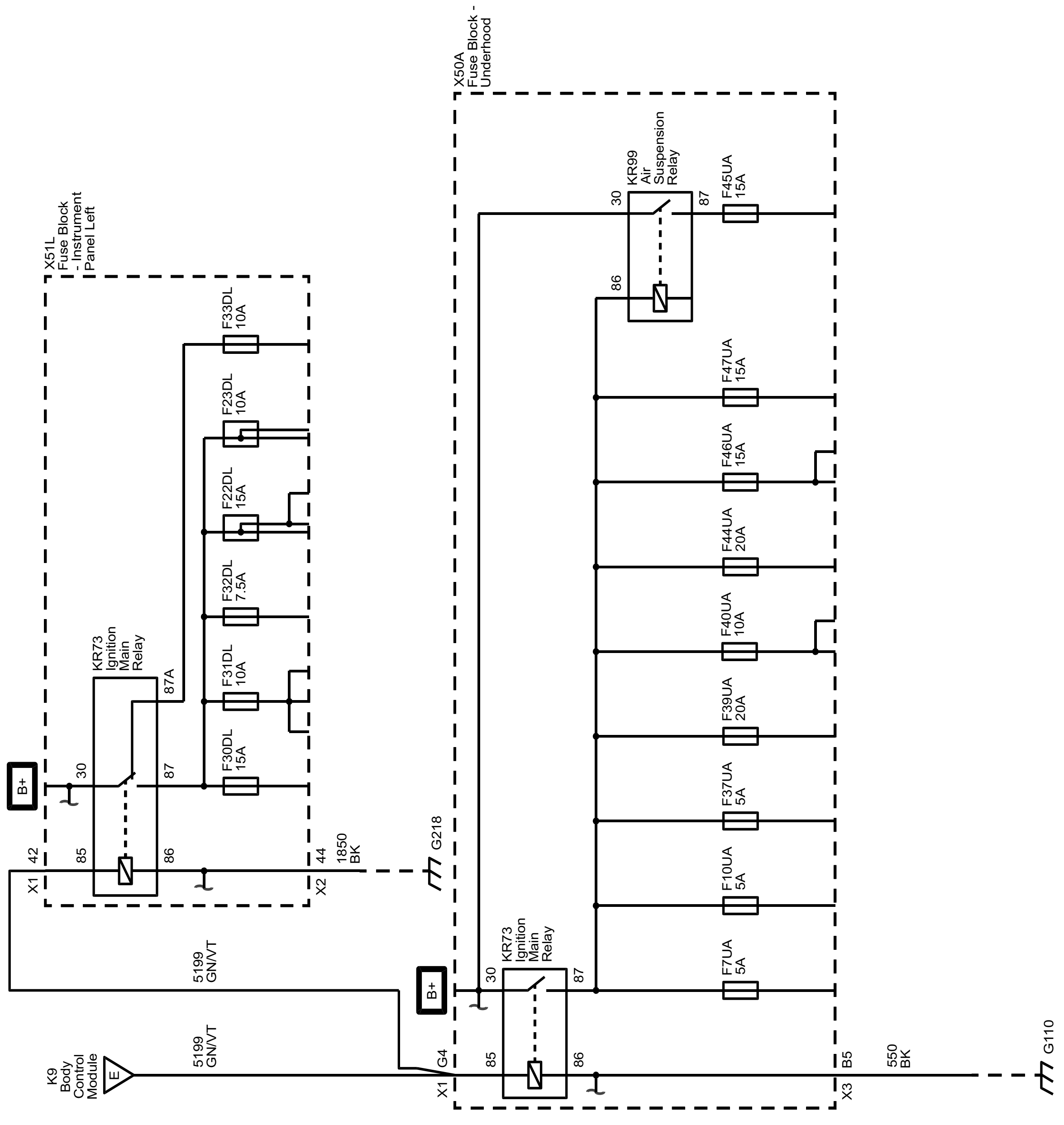
## Power Moding Schematics (Ignition Switch and Ignition Power)



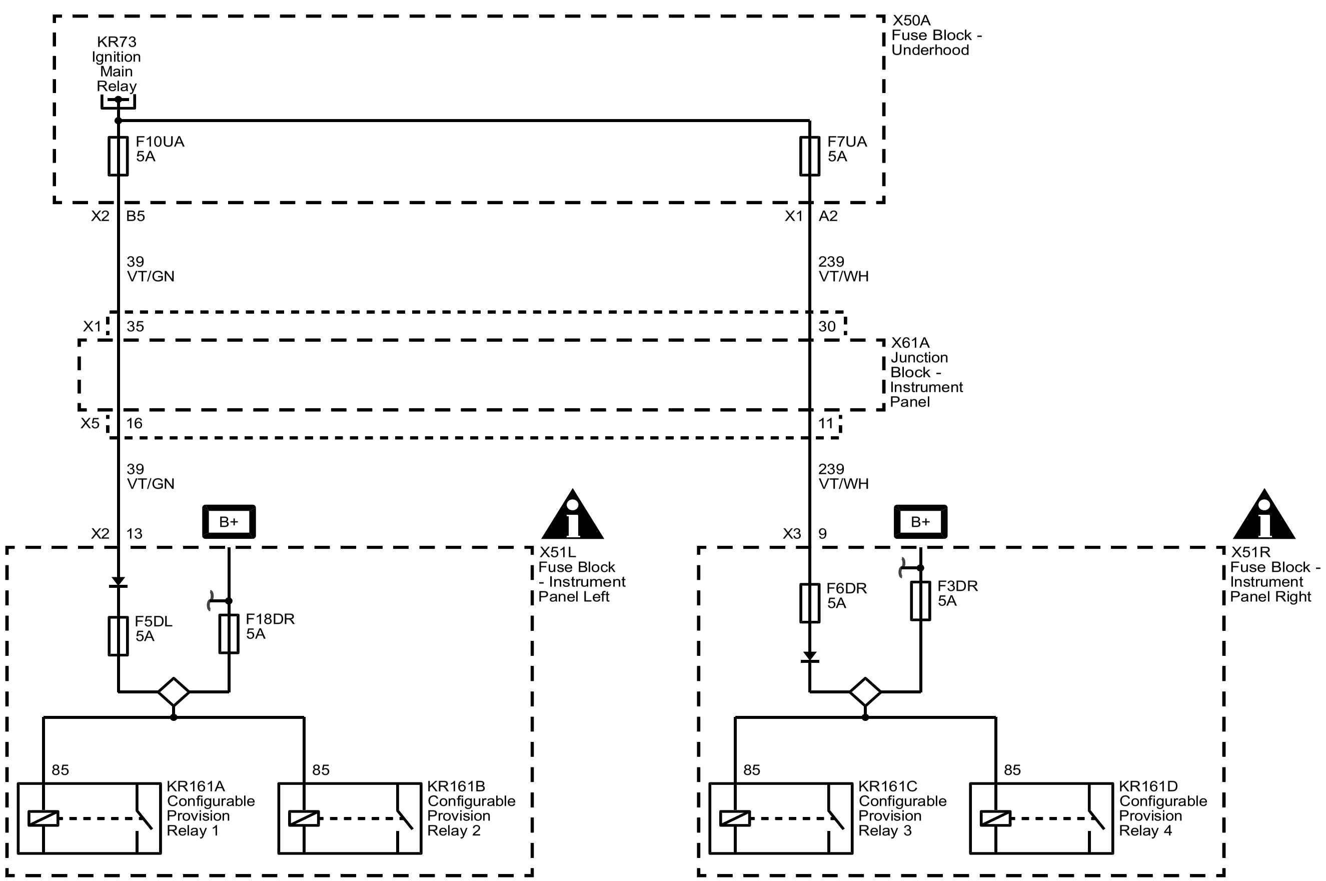
4914978
LOC
DESC
B+
X51L Fuse Block - Instrument Panel Left
F13DL 2A
X2 5
540 RD/BU
X201 4
540 RD/BU 4
S39 Ignition Switch
I
II
III
1.3K
6
5 1020 WH/VT 15
2 3 VT/BK 6
3 4 VT/YE 5
1073 WH/BK 22
X3
5V
750
K9 Body Control Module
F17DL
F17DL
15
5199 GN/VT
E
X50A Fuse Block - Underhood
22
5985 VT/YE
X4
5985 VT/YE
JL1/NQF
-JL1/NQF
5985 VT/YE
X115 16
5985 VT/YE
J309
NQF
5985 VT/YE
X2 38
X61A Junction Block - Instrument Panel
X9 7
5985 VT/YE
X2 6
IGN
K69 Transfer Case Control Module
JL1
5985 VT/YE
X138 20
5985 VT/YE
14
IGN
K38A Chassis Control Module - Auxiliary
J165
5985 VT/YE
X1 7
IGN
K20 Engine Control Module
5985 VT/YE
43
K71 Transmission Control Module
5985 VT/YE
X101 17
443 VT/YE
X2 40
K34 Glow Plug Control Module

# Power Moding Schematics (Ignition Main Relays)

4914981

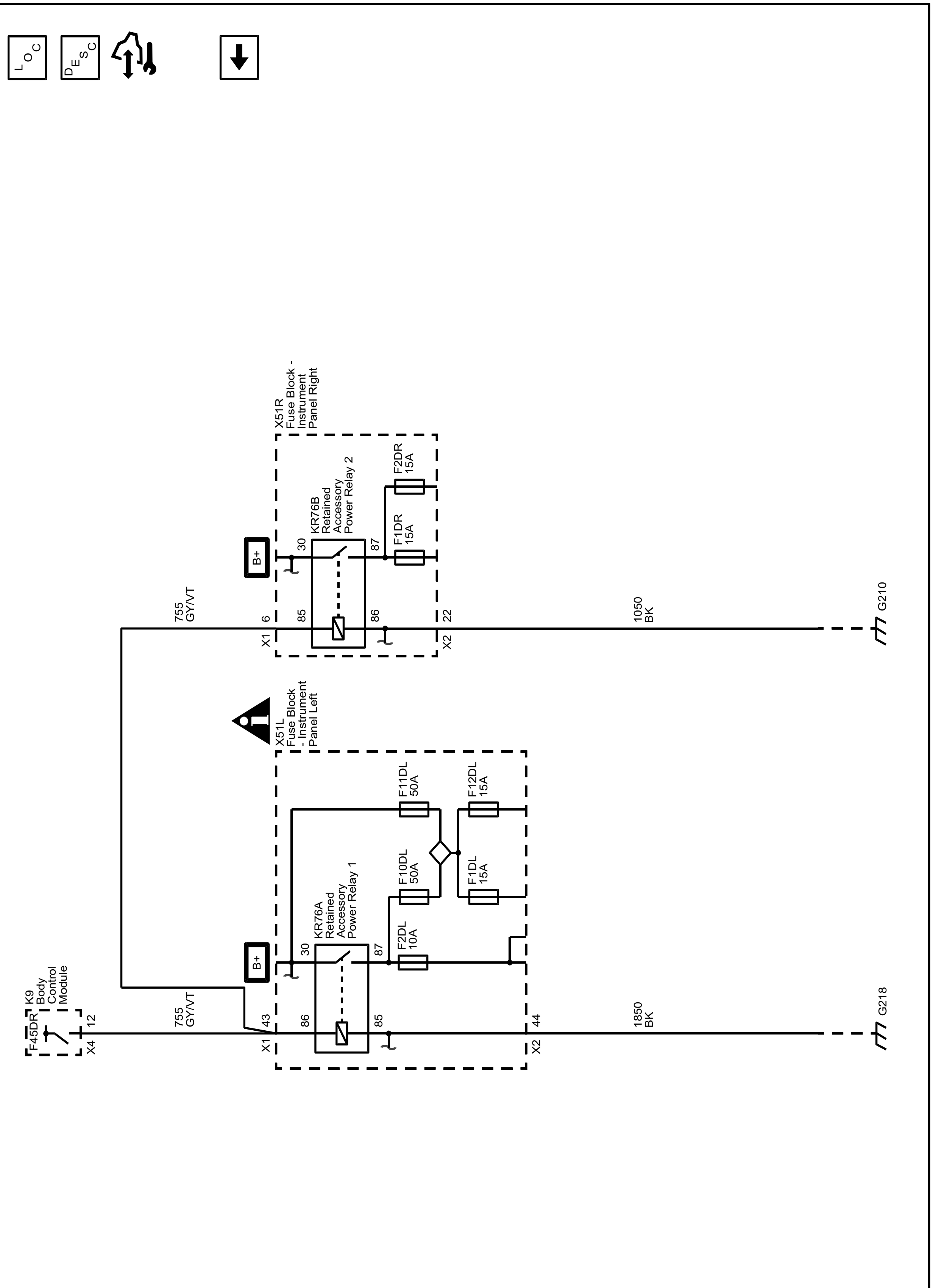

X51L
Fuse Block
- Instrument
Panel Left
B+
30
KR73
Ignition
Main
Relay
87A
87
F33DL
10A
F23DL
10A
F22DL
15A
F32DL
7.5A
F31DL
10A
F30DL
15A
X1
42
85
86
X2
44
1850
BK
G218
5199
GN/VT
K9
Body
Control
Module
E
5199
GN/VT
X1
G4
X50A
Fuse Block -
Underhood
B+
30
85
KR73
Ignition
Main
Relay
87
86
KR99
Air
Suspension
Relay
30
87
86
F45UA
15A
F47UA
15A
F46UA
15A
F44UA
20A
F40UA
10A
F39UA
20A
F37UA
5A
F10UA
5A
F7UA
5A
B5
X3
550
BK
G110

## Power Moding Schematics (Ignition Power to Provisional Relays (9L7))

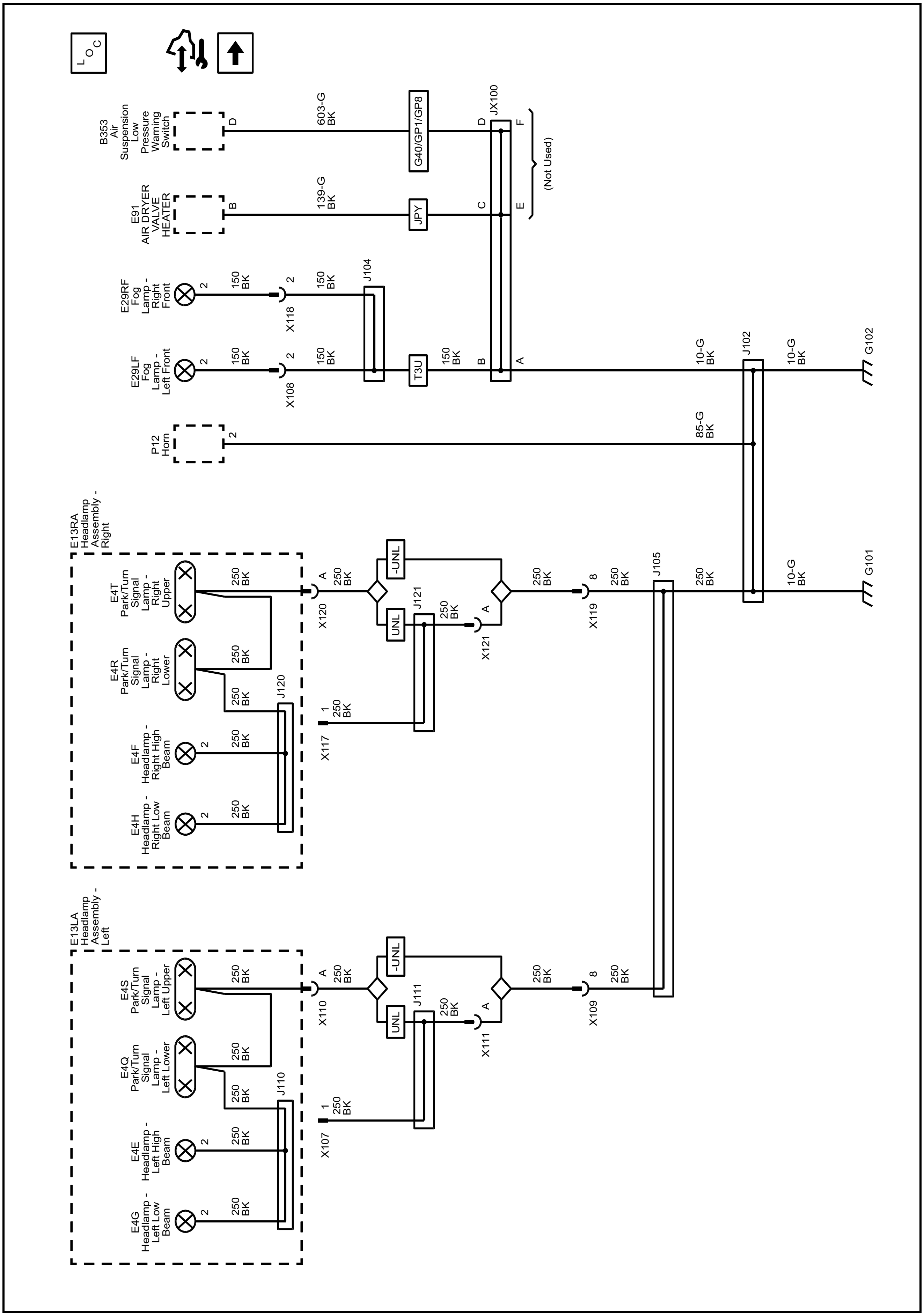

X50A
Fuse Block - Underhood
KR73 Ignition Main Relay
F10UA
5A
F7UA
5A
X2
B5
X1
A2
39
VT/GN
239
VT/WH
X1
35
30
X61A
Junction Block - Instrument Panel
X5
16
11
39
VT/GN
239
VT/WH
X2
13
B+
X3
9
B+
X51L
Fuse Block - Instrument Panel Left
X51R
Fuse Block - Instrument Panel Right
F5DL
5A
F18DR
5A
F6DR
5A
F3DR
5A
85
KR161A Configurable Provision Relay 1
85
KR161B Configurable Provision Relay 2
85
KR161C Configurable Provision Relay 3
85
KR161D Configurable Provision Relay 4

4919066

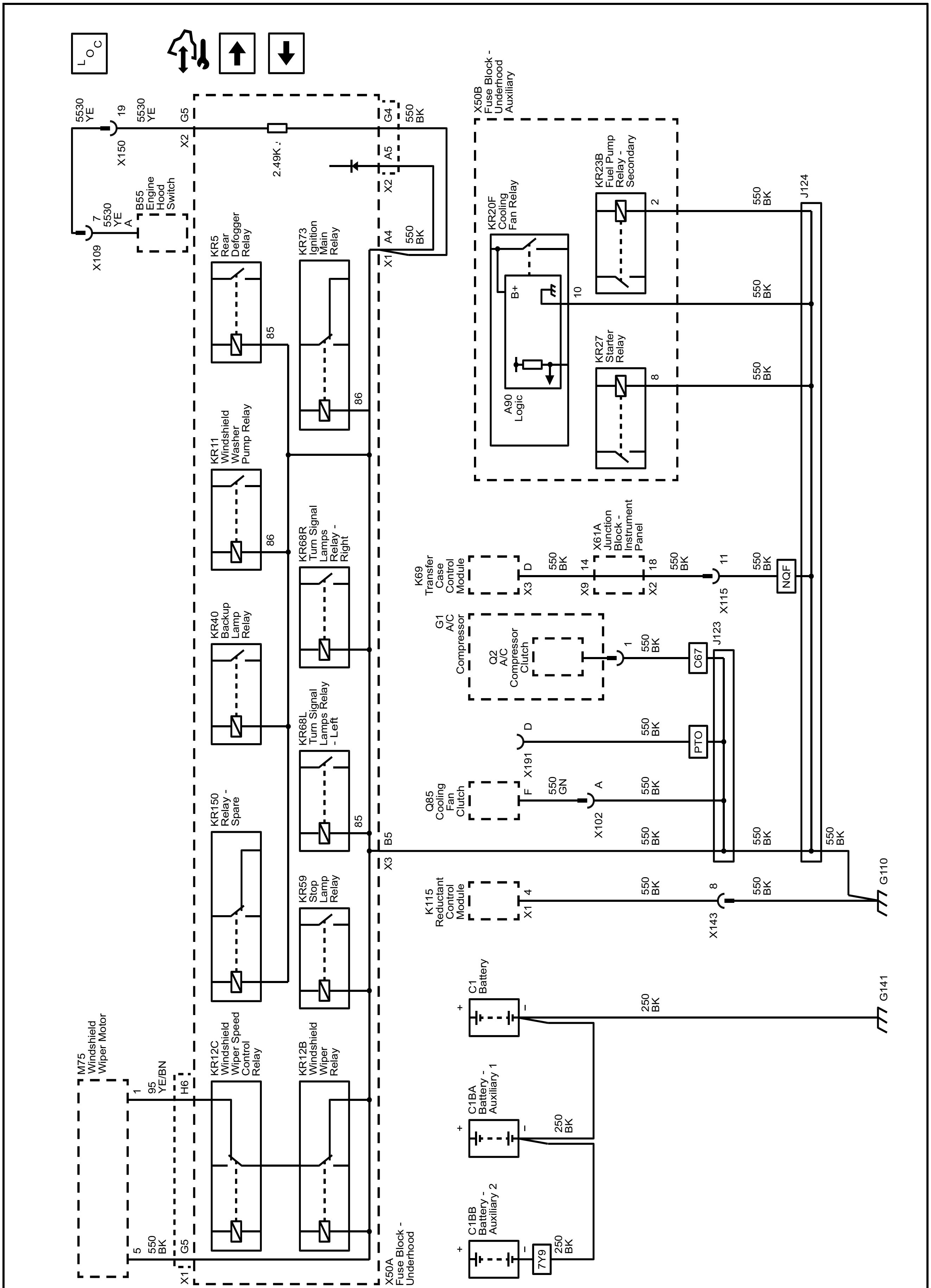
## Power Moding Schematics (Retained Accessory Power Relays)


4914988
LOC
DESC
X51R
Fuse Block - Instrument Panel Right
B+
30
KR76B Retained Accessory Power Relay 2
87
F1DR 15A
F2DR 15A
755 GY/VT
X1 6
85
86
X2 22
1050 BK
G210
X51L
Fuse Block - Instrument Panel Left
F11DL 50A
F12DL 15A
F10DL 50A
F1DL 15A
KR76A Retained Accessory Power Relay 1
F2DL 10A
K9 Body Control Module
F45DR
X4 12
755 GY/VT
X1 43
86
85
X2 44
1850 BK
G218

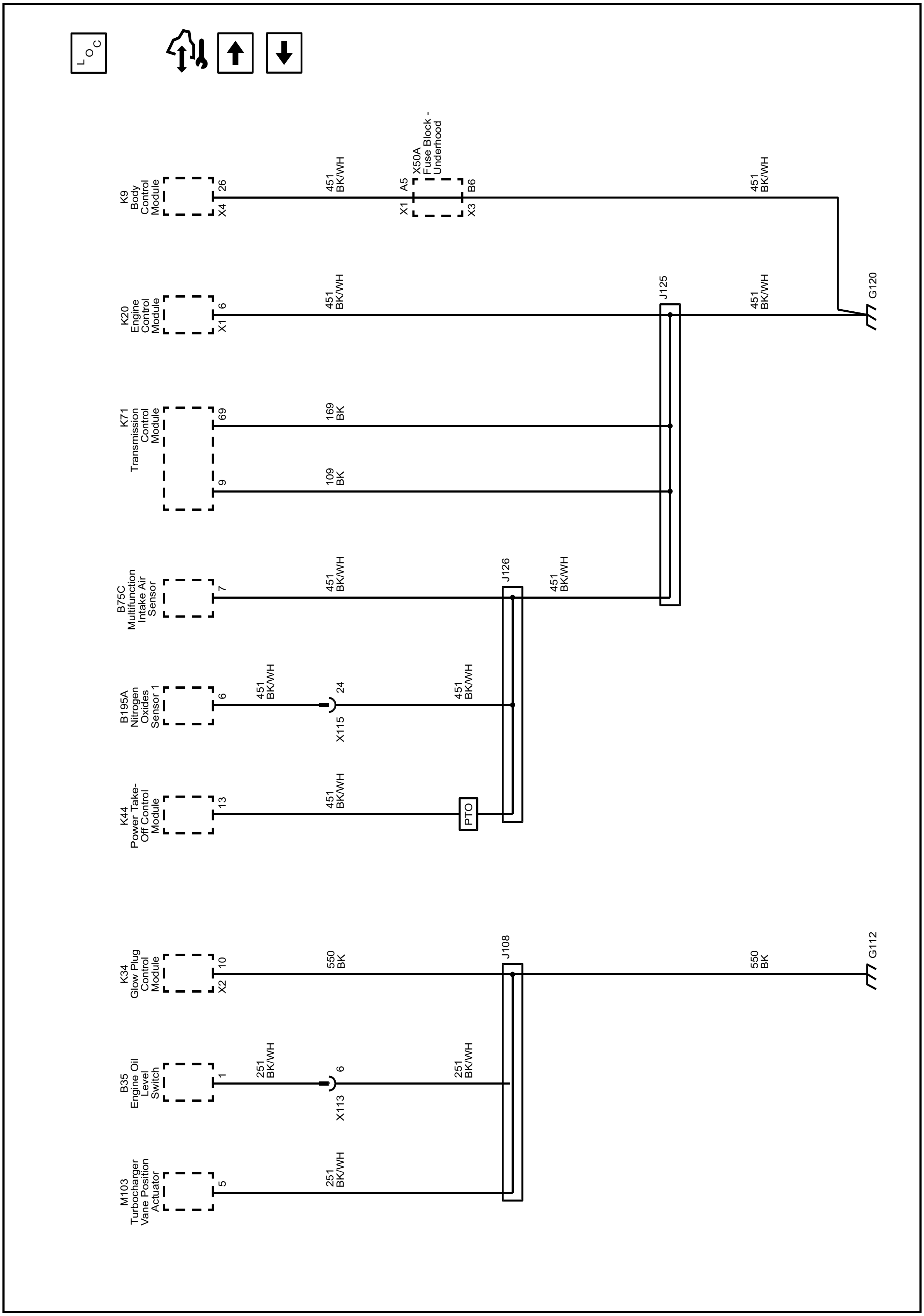
## Ground Distribution Schematics (G101 and G102)


4914991
LOC
B353 Air Suspension Low Pressure Warning Switch
D
603-G BK
G40/GP1/GP8
JX100
D
F
(Not Used)
E91 AIR DRYER VALVE HEATER
B
139-G BK
JPY
C
E
E29RF Fog Lamp - Right Front
2
150 BK
X118
2
150 BK
J104
E29LF Fog Lamp - Left Front
2
150 BK
X108
2
150 BK
T3U
150 BK
B
A
10-G BK
J102
10-G BK
G102
P12 Horn
2
85-G BK
E13RA Headlamp Assembly - Right
E4T Park/Turn Signal Lamp - Right Upper
250 BK
X120
A
250 BK
-UNL
UNL
J121
250 BK
X121
A
250 BK
X119
8
250 BK
J105
250 BK
10-G BK
G101
E4R Park/Turn Signal Lamp - Right Lower
250 BK
250 BK
J120
X117
1
250 BK
E4F Headlamp - Right High Beam
2
250 BK
E4H Headlamp - Right Low Beam
2
250 BK
E13LA Headlamp Assembly - Left
E4S Park/Turn Signal Lamp - Left Upper
250 BK
X110
A
250 BK
-UNL
UNL
J111
250 BK
X111
A
250 BK
X109
8
250 BK
E4Q Park/Turn Signal Lamp - Left Lower
250 BK
250 BK
J110
X107
1
250 BK
E4E Headlamp - Left High Beam
2
250 BK
E4G Headlamp - Left Low Beam
2
250 BK

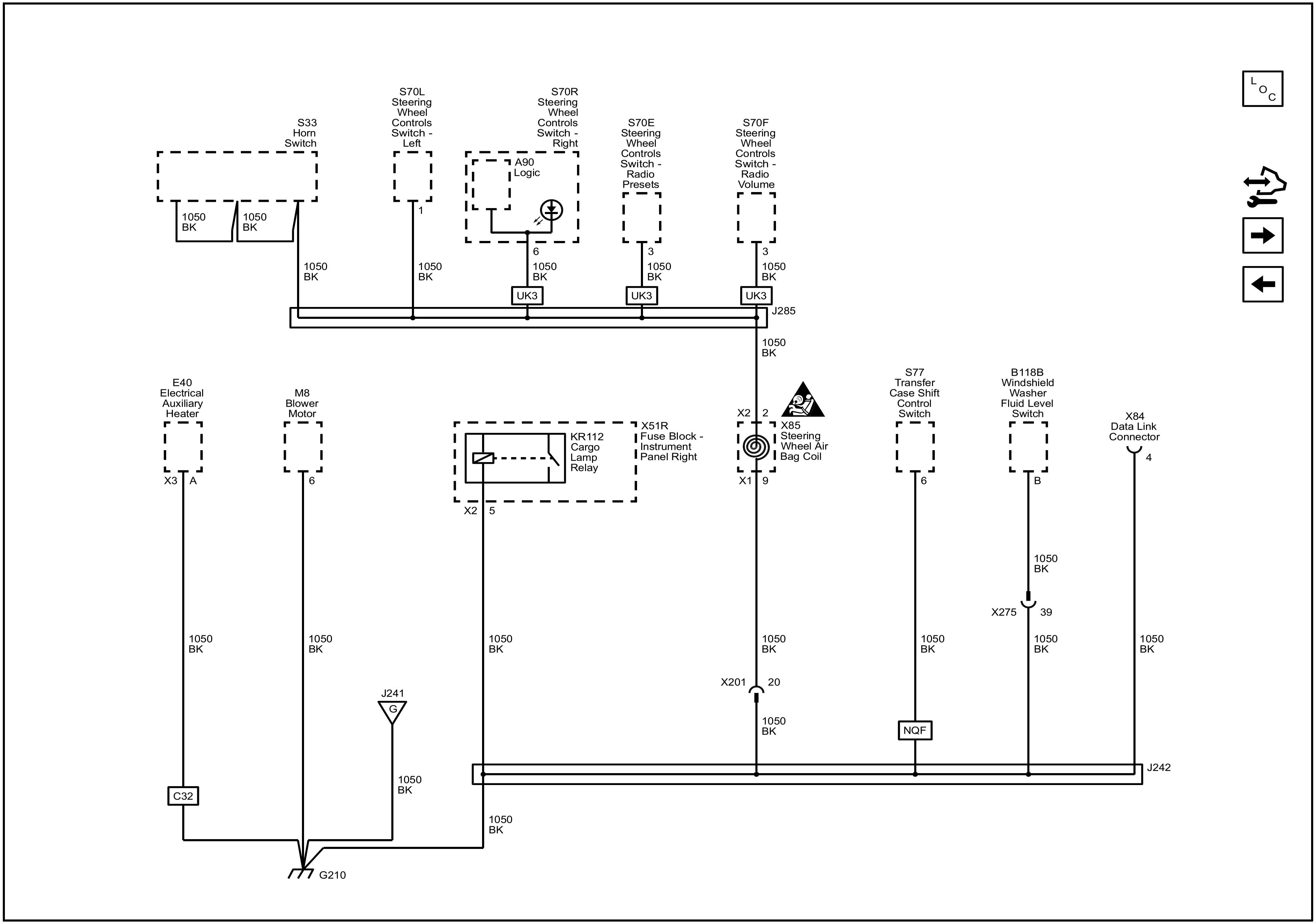
# Ground Distribution Schematics (G110 and G141)


4914995
X109
7
5530
YE
A
B55
Engine
Hood
Switch
X150
19
5530
YE
G5
X2
2.49K Ω
G4
550
BK
A5
X2
A4
550
BK
X1
KR5
Rear
Defogger
Relay
85
KR73
Ignition
Main
Relay
86
KR11
Windshield
Washer
Pump Relay
86
KR68R
Turn Signal
Lamps
Relay -
Right
KR40
Backup
Lamp
Relay
KR68L
Turn Signal
Lamps Relay
- Left
85
KR150
Relay -
Spare
B5
X3
KR59
Stop
Lamp
Relay
M75
Windshield
Wiper Motor
1
95
YE/BN
H6
KR12C
Windshield
Wiper Speed
Control
Relay
KR12B
Windshield
Wiper
Relay
5
550
BK
G5
X1
X50A
Fuse Block -
Underhood
X50B
Fuse Block -
Underhood
Auxiliary
KR20F
Cooling
Fan Relay
B+
10
A90
Logic
KR23B
Fuel Pump
Relay -
Secondary
2
KR27
Starter
Relay
8
550
BK
J124
K69
Transfer
Case
Control
Module
X3
D
550
BK
X9
14
X61A
Junction
Block -
Instrument
Panel
X2
18
550
BK
11
X115
550
BK
NQF
G1
A/C
Compressor
Q2
A/C
Compressor
Clutch
1
550
BK
C67
J123
D
X191
550
BK
PTO
Q85
Cooling
Fan
Clutch
F
550
GN
X102
A
550
BK
550
BK
550
BK
550
BK
G110
K115
Reductant
Control
Module
X1
4
550
BK
8
X143
550
BK
C1
Battery
+
-
250
BK
G141
C1BA
Battery -
Auxiliary 1
+
-
250
BK
C1BB
Battery -
Auxiliary 2
+
-
7Y9
250
BK

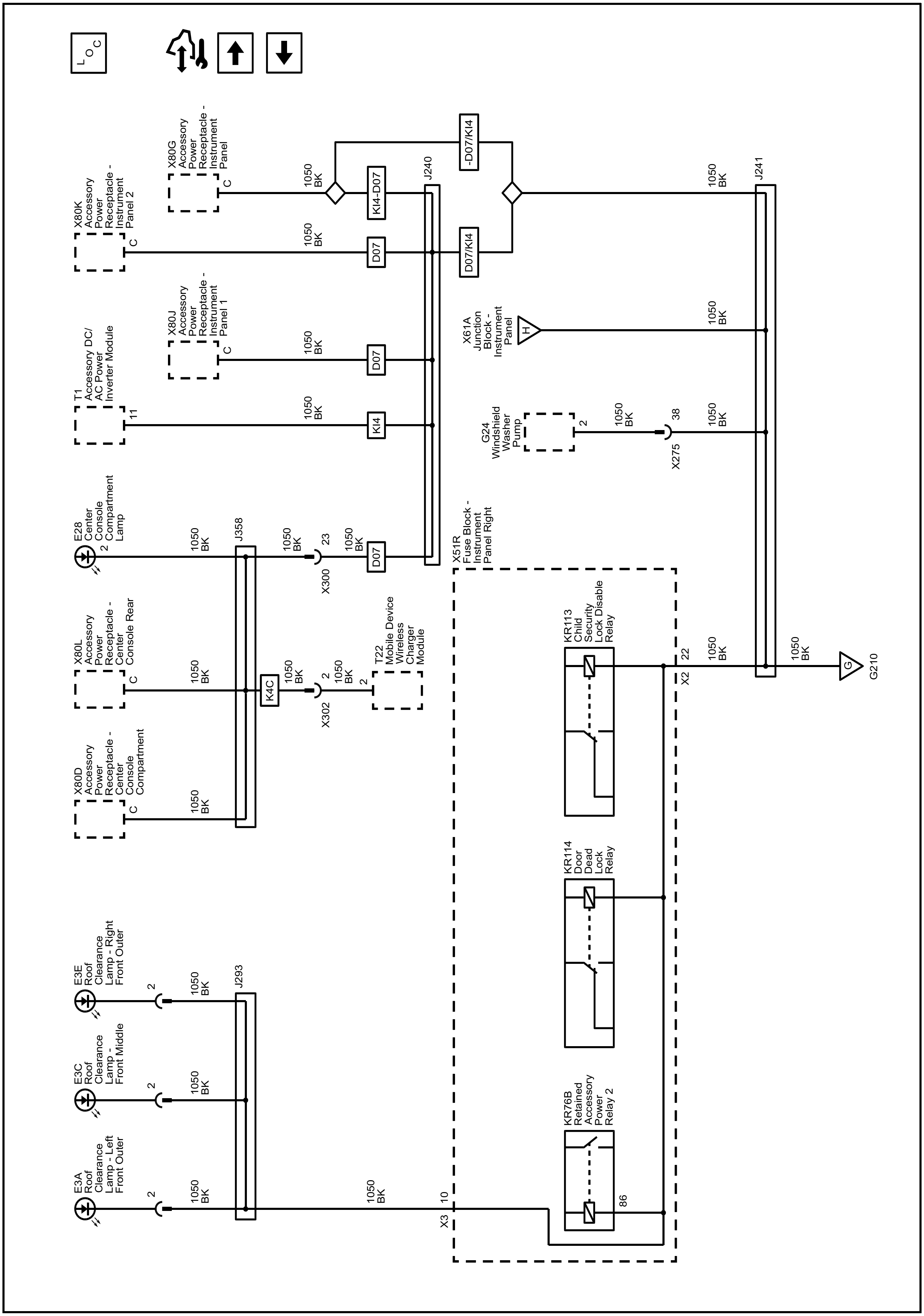
## Ground Distribution Schematics (G112 and G120)


4914999
L O C
K9 Body Control Module
X4 26
451 BK/WH
X1 A5
X50A Fuse Block - Underhood
B6 X3
451 BK/WH
G120
K20 Engine Control Module
X1 6
451 BK/WH
J125
451 BK/WH
K71 Transmission Control Module
69
169 BK
9
109 BK
B75C Multifunction Intake Air Sensor
7
451 BK/WH
J126
451 BK/WH
B195A Nitrogen Oxides Sensor 1
6
451 BK/WH
24
X115
451 BK/WH
K44 Power Take-Off Control Module
13
451 BK/WH
PTO
K34 Glow Plug Control Module
X2 10
550 BK
J108
550 BK
G112
B35 Engine Oil Level Switch
1
251 BK/WH
6
X113
251 BK/WH
M103 Turbocharger Vane Position Actuator
5
251 BK/WH

## Ground Distribution Schematics (G210 1 of 3)

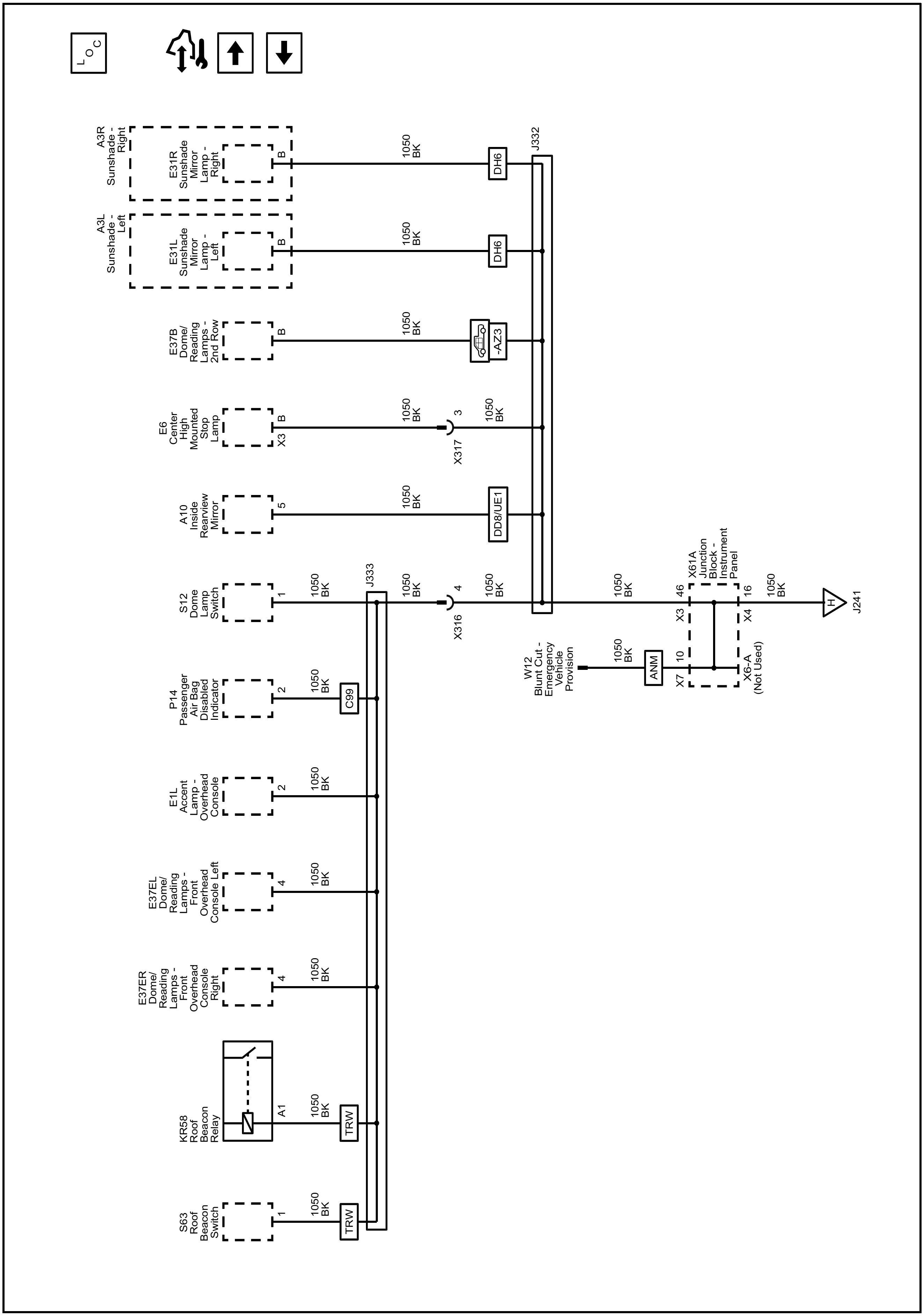

L O C
S33
Horn
Switch
1050
BK
1050
BK
S70L
Steering
Wheel
Controls
Switch -
Left
1
S70R
Steering
Wheel
Controls
Switch -
Right
A90
Logic
6
S70E
Steering
Wheel
Controls
Switch -
Radio
Presets
3
S70F
Steering
Wheel
Controls
Switch -
Radio
Volume
3
1050
BK
UK3
J285
E40
Electrical
Auxiliary
Heater
X3 A
M8
Blower
Motor
6
KR112
Cargo
Lamp
Relay
X51R
Fuse Block -
Instrument
Panel Right
X2 5
X2 2
X85
Steering
Wheel Air
Bag Coil
X1 9
S77
Transfer
Case Shift
Control
Switch
6
B118B
Windshield
Washer
Fluid Level
Switch
B
X84
Data Link
Connector
4
X275 39
X201 20
NQF
J241
G
C32
J242
G210
4915010

## Ground Distribution Schematics (G210 2 of 3)

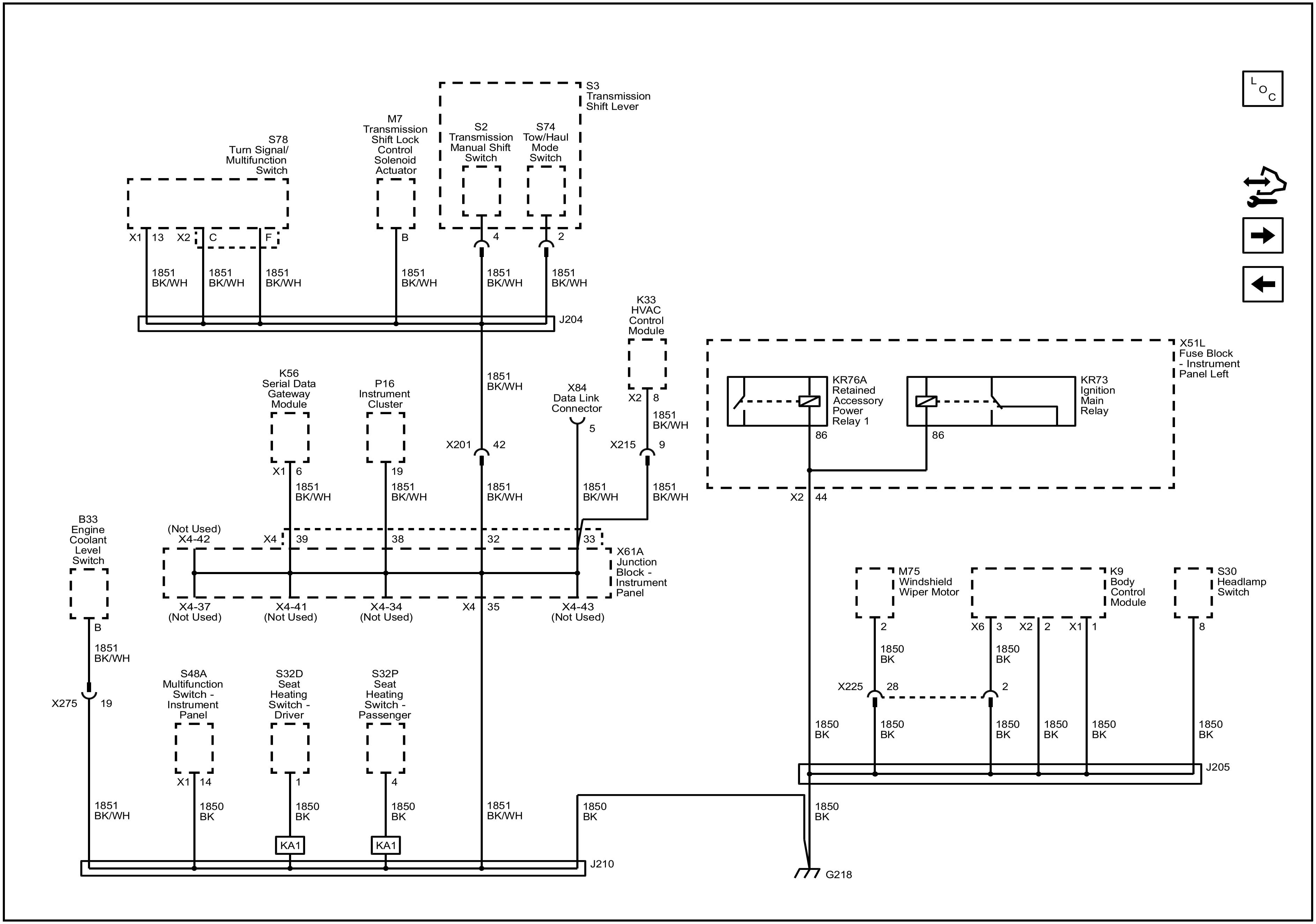


4915047
E3A Roof Clearance Lamp - Left Front Outer
E3C Roof Clearance Lamp - Front Middle
E3E Roof Clearance Lamp - Right Front Outer
X80D Accessory Power Receptacle - Center Console Compartment
X80L Accessory Power Receptacle - Center Console Rear
E28 Center Console Compartment Lamp
T1 Accessory DC/AC Power Inverter Module
X80K Accessory Power Receptacle - Instrument Panel 2
X80J Accessory Power Receptacle - Instrument Panel 1
X80G Accessory Power Receptacle - Instrument Panel
T22 Mobile Device Wireless Charger Module
G24 Windshield Washer Pump
X61A Junction Block - Instrument Panel
X51R Fuse Block - Instrument Panel Right
KR76B Retained Accessory Power Relay 2
KR114 Door Dead Lock Relay
KR113 Child Security Lock Disable Relay
J293
J358
J240
J241
X300
X302
X275
X3
X2
G210
G
H
C
2
11
10
22
23
38
86
1050 BK
K4C
D07
KI4
KI4-D07
D07/KI4
-D07/KI4

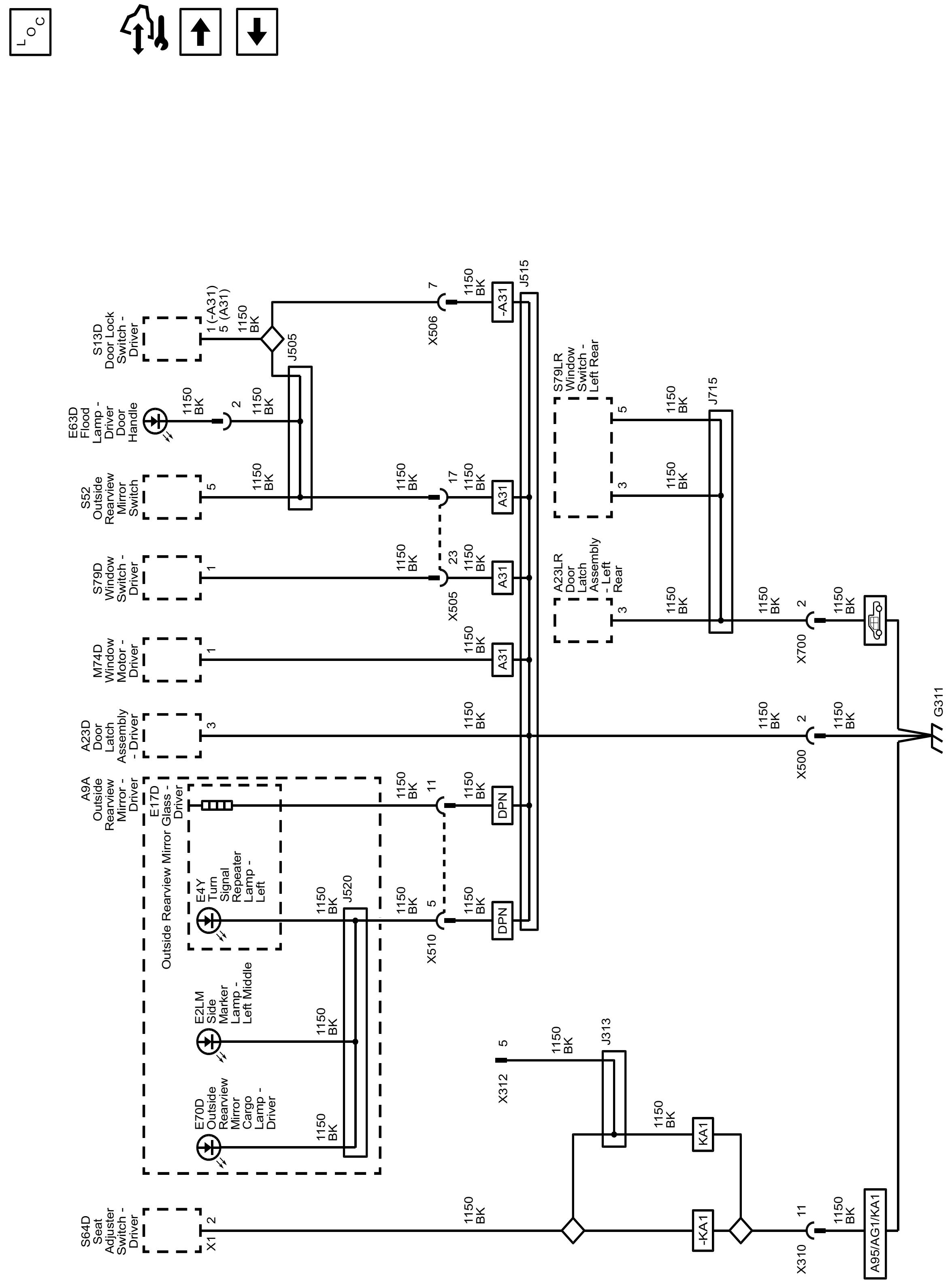
## Ground Distribution Schematics (G210 3 of 3)


4915048
LOC
A3R Sunshade - Right
E31R Sunshade Mirror Lamp - Right
B
1050 BK
DH6
J332
A3L Sunshade - Left
E31L Sunshade Mirror Lamp - Left
B
1050 BK
DH6
E37B Dome/ Reading Lamps - 2nd Row
B
1050 BK
-AZ3
E6 Center High Mounted Stop Lamp
B
X3
1050 BK
3
X317
1050 BK
A10 Inside Rearview Mirror
5
1050 BK
DD8/UE1
S12 Dome Lamp Switch
1
1050 BK
J333
1050 BK
4
X316
1050 BK
1050 BK
46
X3
X61A Junction Block - Instrument Panel
16
X4
1050 BK
H
J241
W12 Blunt Cut - Emergency Vehicle Provision
1050 BK
ANM
10
X7
X6-A (Not Used)
P14 Passenger Air Bag Disabled Indicator
2
1050 BK
C99
E1L Accent Lamp - Overhead Console
2
1050 BK
E37EL Dome/ Reading Lamps - Front Overhead Console Left
4
1050 BK
E37ER Dome/ Reading Lamps - Front Overhead Console Right
4
1050 BK
KR58 Roof Beacon Relay
A1
1050 BK
TRW
S63 Roof Beacon Switch
1
1050 BK
TRW

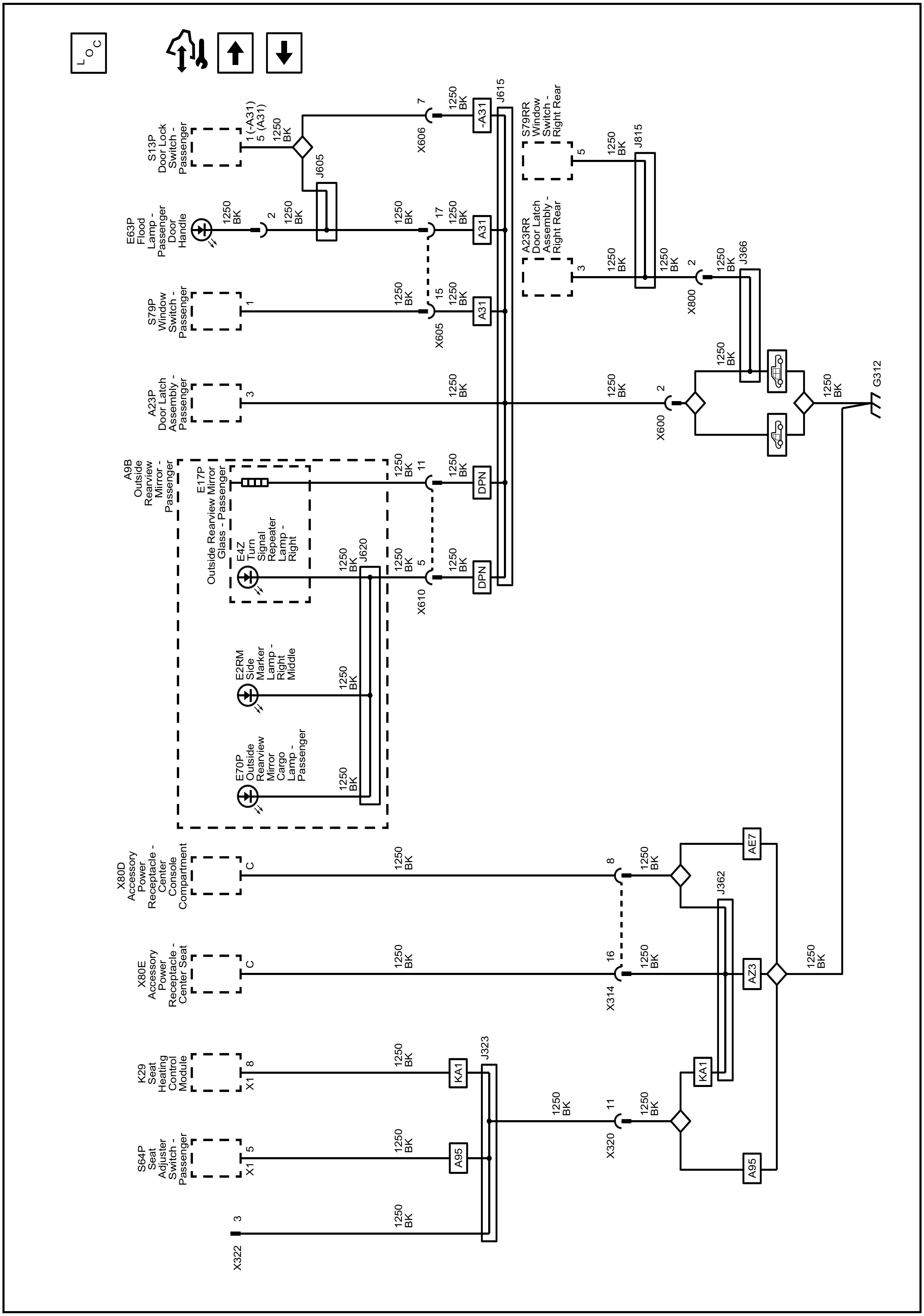
## Ground Distribution Schematics (G218)


S3 Transmission Shift Lever
S78 Turn Signal/ Multifunction Switch
M7 Transmission Shift Lock Control Solenoid Actuator
S2 Transmission Manual Shift Switch
S74 Tow/Haul Mode Switch
X1 13
X2 C
F
B
4
2
1851 BK/WH
J204
K33 HVAC Control Module
X2 8
X215 9
K56 Serial Data Gateway Module
X1 6
P16 Instrument Cluster
19
X84 Data Link Connector
5
X201 42
X61A Junction Block - Instrument Panel
(Not Used) X4-42
X4 39
38
32
33
X4-37 (Not Used)
X4-41 (Not Used)
X4-34 (Not Used)
X4 35
X4-43 (Not Used)
X51L Fuse Block - Instrument Panel Left
KR76A Retained Accessory Power Relay 1
KR73 Ignition Main Relay
86
X2 44
B33 Engine Coolant Level Switch
X275 19
S48A Multifunction Switch - Instrument Panel
X1 14
S32D Seat Heating Switch - Driver
1
S32P Seat Heating Switch - Passenger
4
KA1
1850 BK
J210
M75 Windshield Wiper Motor
K9 Body Control Module
S30 Headlamp Switch
X6 3
X2 2
X1 1
8
X225 28
J205
G218
4915053

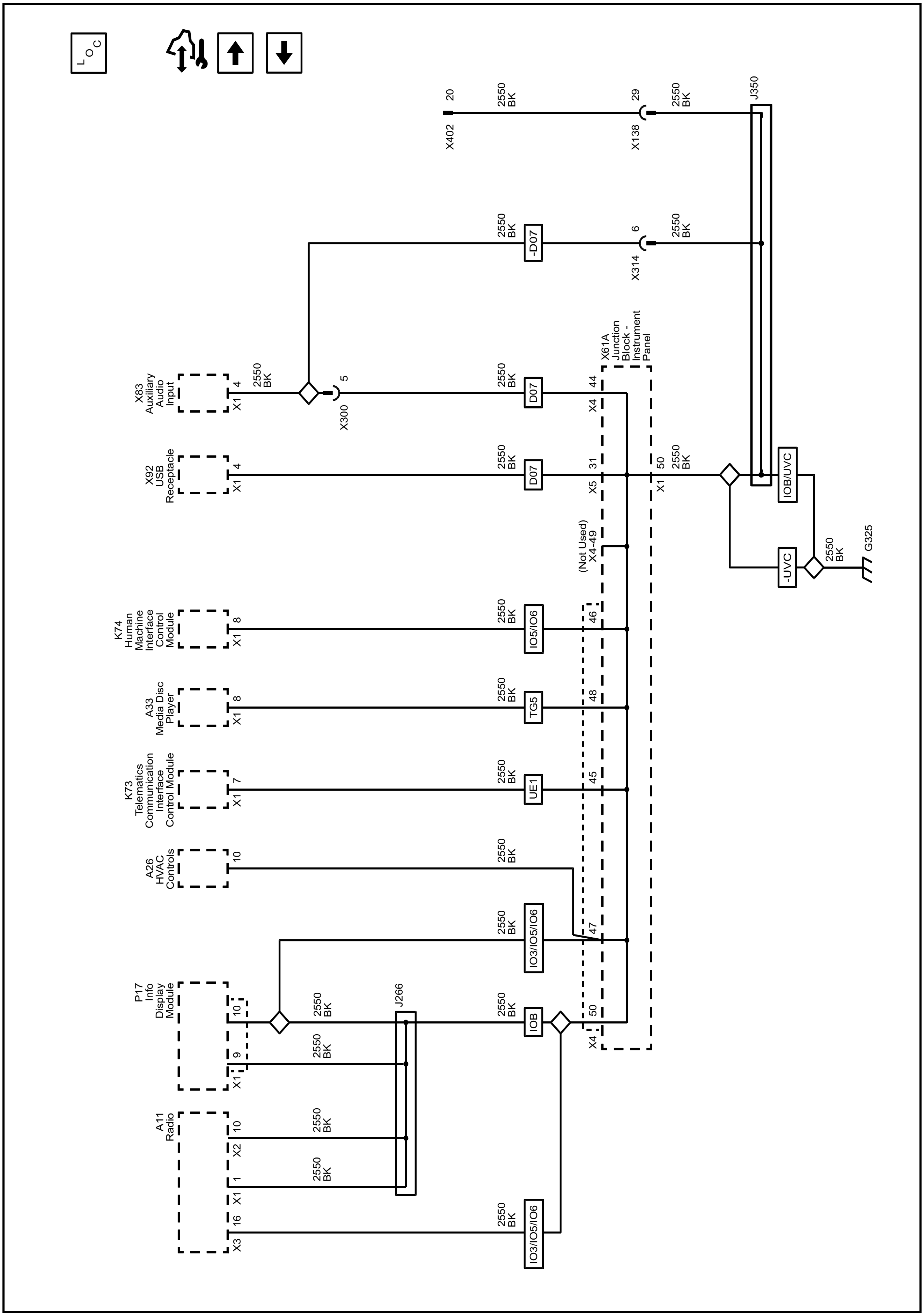
## Ground Distribution Schematics (G311)


4915056
L O C
S13D Door Lock Switch - Driver
1 (-A31)
5 (A31)
1150 BK
J505
E63D Flood Lamp - Driver Door Handle
2
S52 Outside Rearview Mirror Switch
5
17
S79D Window Switch - Driver
1
23
X505
M74D Window Motor - Driver
1
A23D Door Latch Assembly - Driver
3
A9A Outside Rearview Mirror - Driver
E17D Outside Rearview Mirror Glass - Driver
11
E4Y Turn Signal Repeater Lamp - Left
J520
5
X510
E2LM Side Marker Lamp - Left Middle
E70D Outside Rearview Mirror Cargo Lamp - Driver
S64D Seat Adjuster Switch - Driver
X1 2
7
X506
-A31
J515
A31
DPN
S79LR Window Switch - Left Rear
5
3
J715
A23LR Door Latch Assembly - Left Rear
3
2
X700
2
X500
G311
5
X312
J313
KA1
-KA1
11
X310
A95/AG1/KA1

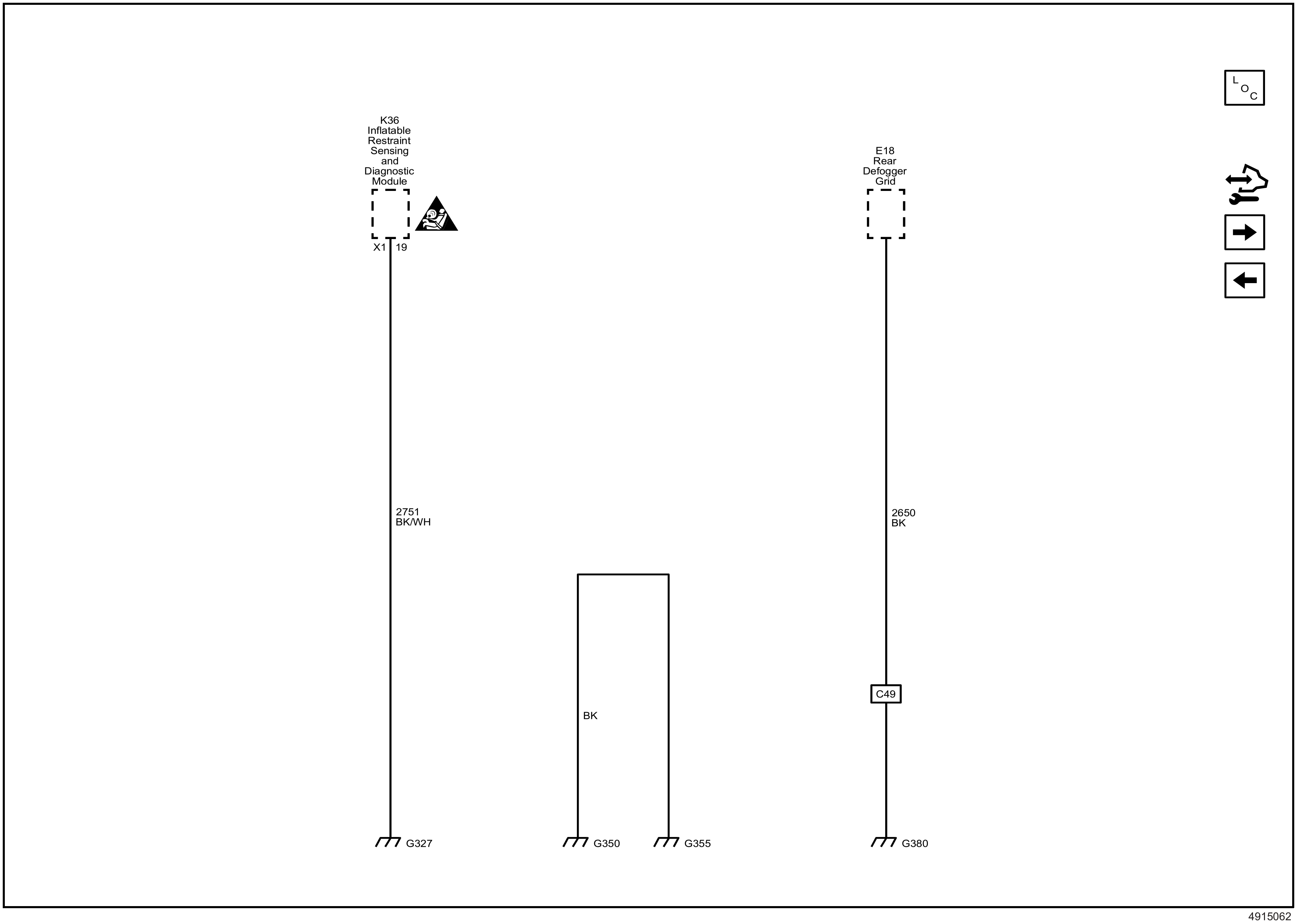
## Ground Distribution Schematics (G312)


4915058
S13P Door Lock Switch - Passenger
1 (-A31)
5 (A31)
J605
E63P Flood Lamp - Passenger Door Handle
S79P Window Switch - Passenger
A23P Door Latch Assembly - Passenger
A9B Outside Rearview Mirror - Passenger
E17P Outside Rearview Mirror Glass - Passenger
E4Z Turn Signal Repeater Lamp - Right
E2RM Side Marker Lamp - Right Middle
E70P Outside Rearview Mirror Cargo Lamp - Passenger
J620
X80D Accessory Power Receptacle - Center Console Compartment
X80E Accessory Power Receptacle - Center Seat
K29 Seat Heating Control Module
S64P Seat Adjuster Switch - Passenger
X1 8
X1 5
X322 3
J323
X606 7
X605 17 15
X610 11 5
-A31
A31
DPN
J615
S79RR Window Switch - Right Rear
A23RR Door Latch Assembly - Right Rear
J815
X800 2
J366
X600 2
G312
X314 8 16
X320 11
J362
AE7
AZ3
KA1
A95
1250 BK
C

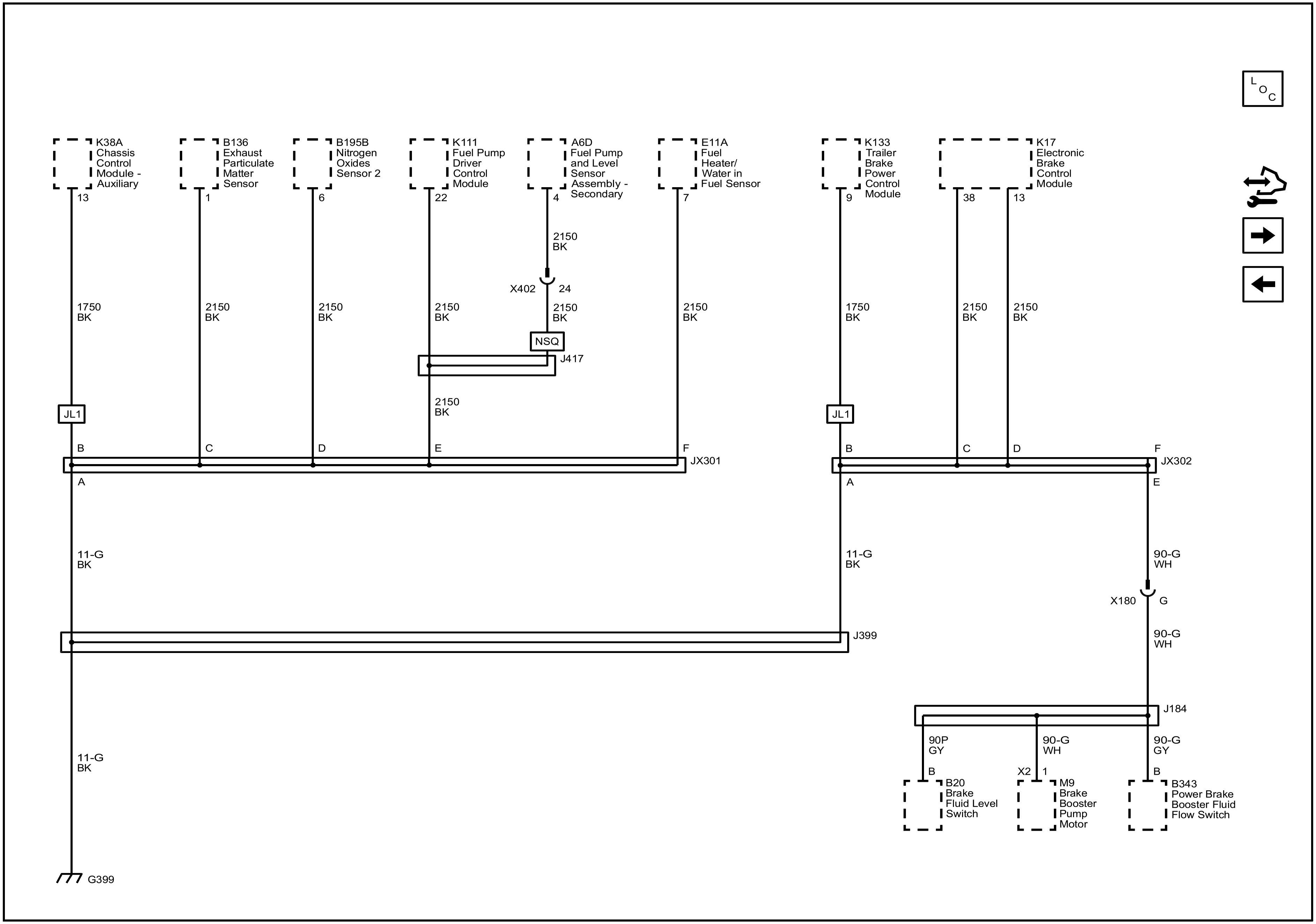
## Ground Distribution Schematics (G325)


4915061
A11 Radio
X3 16
X1 1
X2 10
P17 Info Display Module
X1 9
10
J266
A26 HVAC Controls
10
K73 Telematics Communication Interface Control Module
X1 7
A33 Media Disc Player
X1 8
K74 Human Machine Interface Control Module
X1 8
X92 USB Receptacle
X1 4
X83 Auxiliary Audio Input
X1 4
X300
5
2550 BK
IO3/IO5/IO6
IOB
UE1
TG5
IO5/IO6
D07
-D07
X4 50
47
45
48
46
(Not Used) X4-49
X5 31
X4 44
X61A Junction Block - Instrument Panel
X1 50
X314
6
X138
29
X402
20
J350
IOB/UVC
-UVC
G325

## Ground Distribution Schematics (G327, G350, G355 and G380)


L O C
K36
Inflatable
Restraint
Sensing
and
Diagnostic
Module
X1 19
2751
BK/WH
G327
BK
G350
G355
E18
Rear
Defogger
Grid
2650
BK
C49
G380
4915062

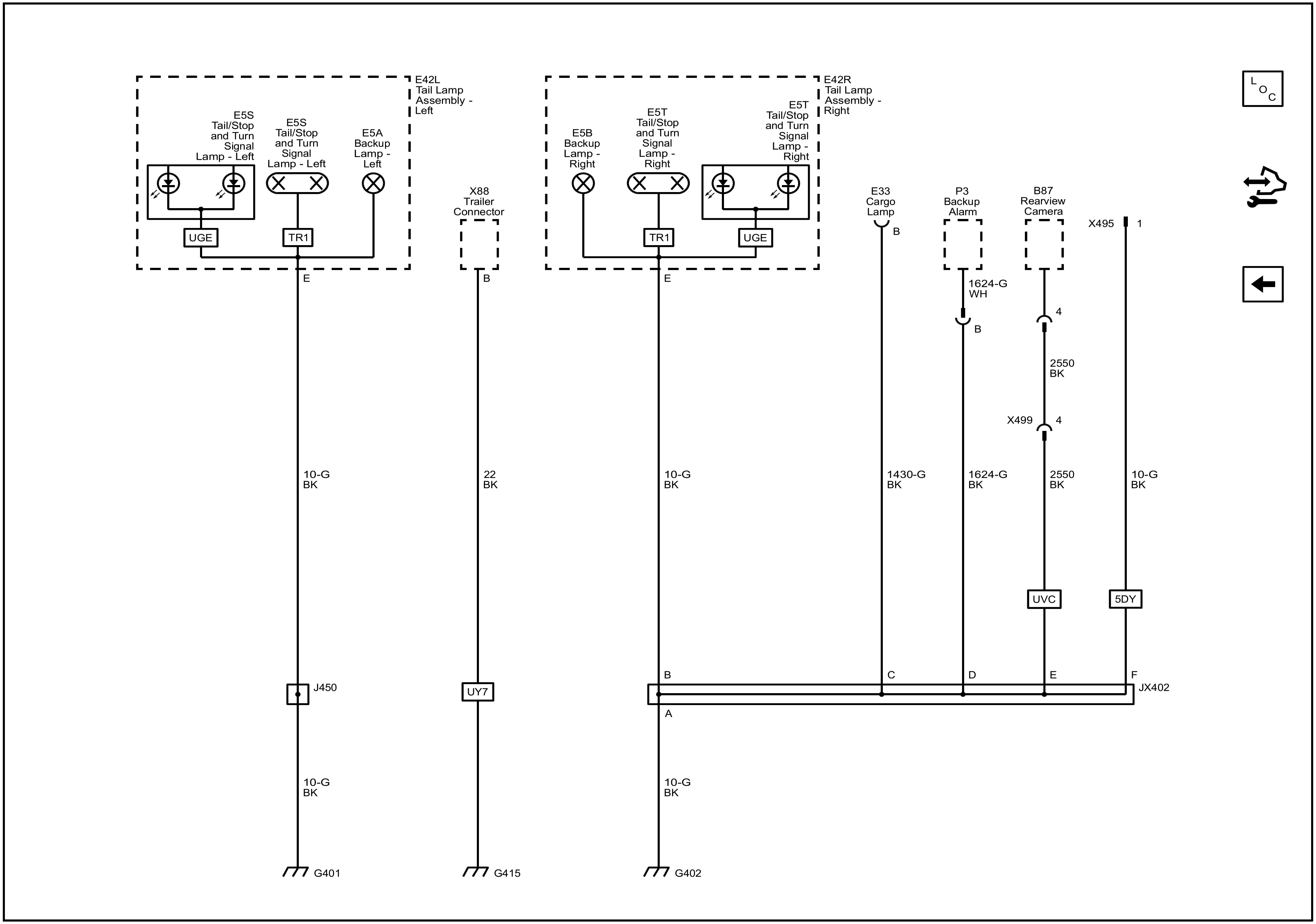
# Ground Distribution Schematics (G399)



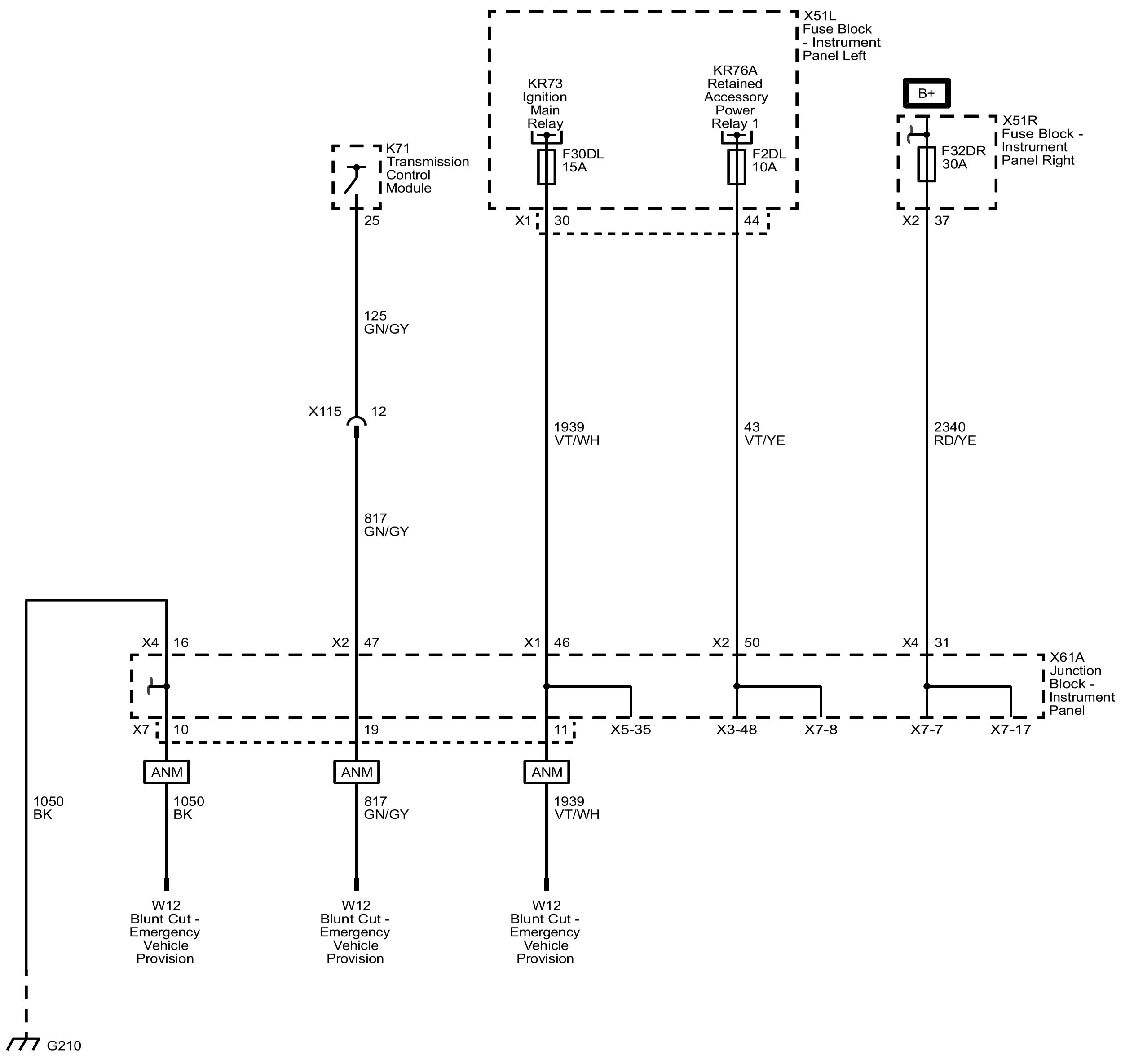
L O C
K38A Chassis Control Module - Auxiliary
13
1750 BK
JL1
B
A
11-G BK
11-G BK
G399
B136 Exhaust Particulate Matter Sensor
1
2150 BK
C
B195B Nitrogen Oxides Sensor 2
6
2150 BK
D
K111 Fuel Pump Driver Control Module
22
2150 BK
2150 BK
E
A6D Fuel Pump and Level Sensor Assembly - Secondary
4
2150 BK
X402
24
2150 BK
NSQ
J417
E11A Fuel Heater/ Water in Fuel Sensor
7
2150 BK
F
JX301
K133 Trailer Brake Power Control Module
9
1750 BK
JL1
B
A
11-G BK
J399
K17 Electronic Brake Control Module
38
13
2150 BK
2150 BK
C
D
F
JX302
E
90-G WH
X180
G
90-G WH
J184
90P GY
B
B20 Brake Fluid Level Switch
90-G WH
X2
1
M9 Brake Booster Pump Motor
90-G GY
B
B343 Power Brake Booster Fluid Flow Switch

4915065

## Ground Distribution Schematics (G401, G402 and G415)

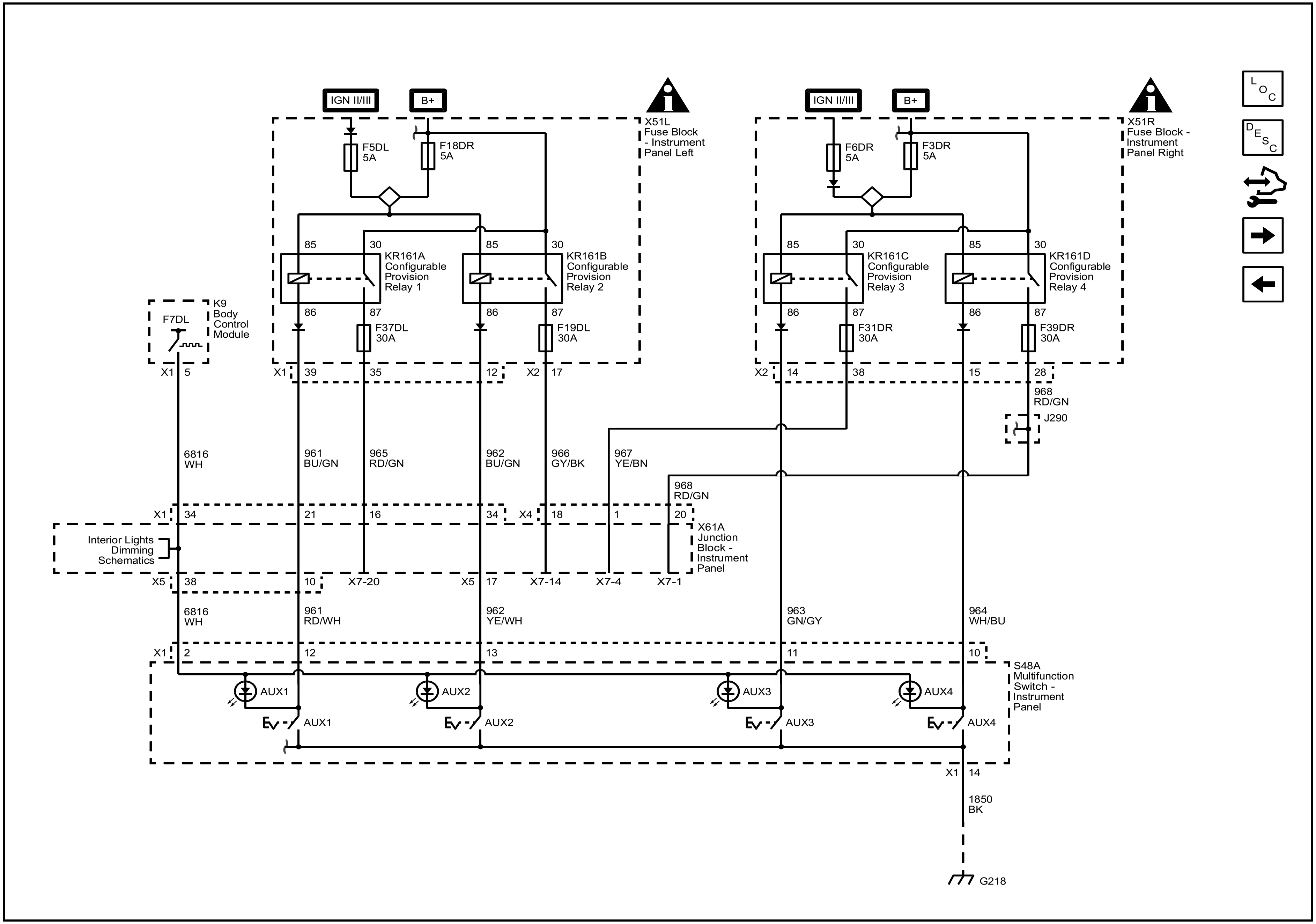

L O C
E42L
Tail Lamp
Assembly -
Left
E5S
Tail/Stop
and Turn
Signal
Lamp - Left
E5S
Tail/Stop
and Turn
Signal
Lamp - Left
E5A
Backup
Lamp -
Left
UGE
TR1
E
10-G
BK
J450
10-G
BK
G401
X88
Trailer
Connector
B
22
BK
UY7
G415
E42R
Tail Lamp
Assembly -
Right
E5B
Backup
Lamp -
Right
E5T
Tail/Stop
and Turn
Signal
Lamp -
Right
E5T
Tail/Stop
and Turn
Signal
Lamp -
Right
TR1
UGE
E
10-G
BK
B
A
10-G
BK
G402
E33
Cargo
Lamp
B
1430-G
BK
C
P3
Backup
Alarm
1624-G
WH
B
1624-G
BK
D
B87
Rearview
Camera
4
2550
BK
X499
4
2550
BK
UVC
E
X495
1
10-G
BK
5DY
F
JX402
4915068

## Upfitter Provision Schematics (Upfitter Provisions at Junction Block - Instrument Panel)


X51L
Fuse Block
- Instrument
Panel Left
KR73
Ignition
Main
Relay
F30DL
15A
KR76A
Retained
Accessory
Power
Relay 1
F2DL
10A
B+
X51R
Fuse Block -
Instrument
Panel Right
F32DR
30A
K71
Transmission
Control
Module
25
X1 30
44
X2 37
125
GN/GY
X115 12
817
GN/GY
1939
VT/WH
43
VT/YE
2340
RD/YE
X4 16
X2 47
X1 46
X2 50
X4 31
X61A
Junction
Block -
Instrument
Panel
X7 10
19
11
X5-35
X3-48
X7-8
X7-7
X7-17
ANM
ANM
ANM
1050
BK
1050
BK
817
GN/GY
1939
VT/WH
W12
Blunt Cut -
Emergency
Vehicle
Provision
W12
Blunt Cut -
Emergency
Vehicle
Provision
W12
Blunt Cut -
Emergency
Vehicle
Provision
G210

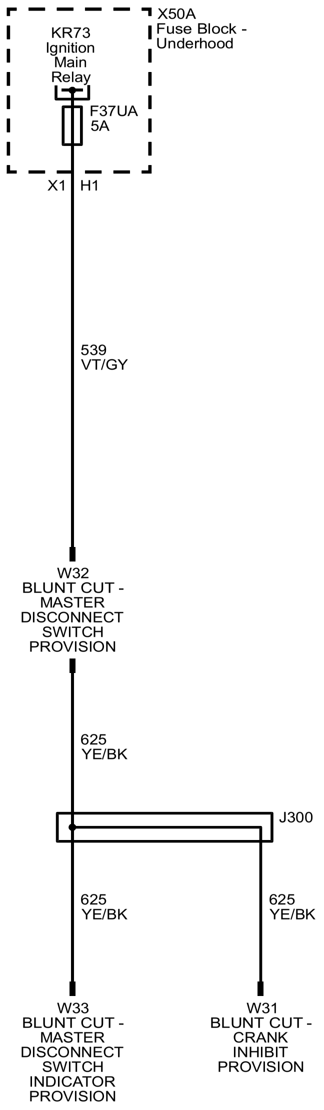
4915079

## Upfitter Provision Schematics (Upfitter Provisions at Junction Block - Instrument Panel (9L7))

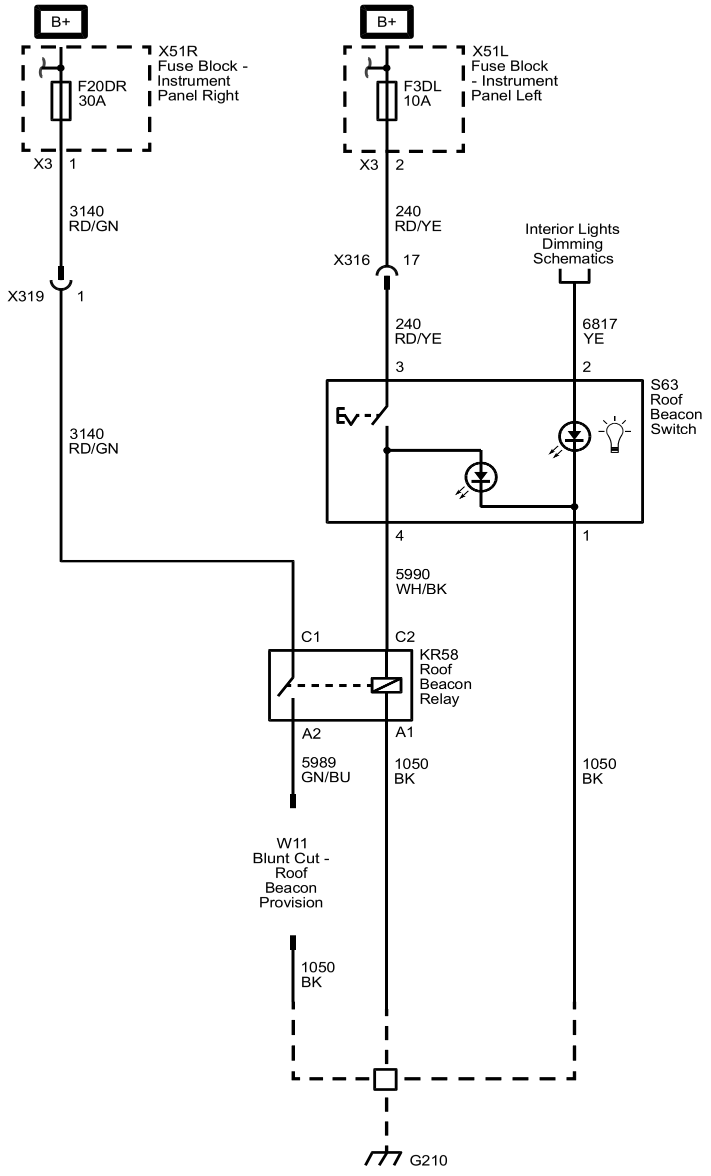

IGN II/III
B+
F5DL 5A
F18DR 5A
X51L Fuse Block - Instrument Panel Left
IGN II/III
B+
F6DR 5A
F3DR 5A
X51R Fuse Block - Instrument Panel Right
85
30
KR161A Configurable Provision Relay 1
85
30
KR161B Configurable Provision Relay 2
85
30
KR161C Configurable Provision Relay 3
85
30
KR161D Configurable Provision Relay 4
86
87
F37DL 30A
86
87
F19DL 30A
86
87
F31DR 30A
86
87
F39DR 30A
K9 Body Control Module
F7DL
X1 5
X1 39
35
12
X2 17
X2 14
38
15
28
968 RD/GN
J290
6816 WH
961 BU/GN
965 RD/GN
962 BU/GN
966 GY/BK
967 YE/BN
968 RD/GN
X1 34
21
16
34
X4 18
1
20
X61A Junction Block - Instrument Panel
Interior Lights Dimming Schematics
X5 38
10
X7-20
X5 17
X7-14
X7-4
X7-1
6816 WH
961 RD/WH
962 YE/WH
963 GN/GY
964 WH/BU
X1 2
12
13
11
10
S48A Multifunction Switch - Instrument Panel
AUX1
AUX2
AUX3
AUX4
AUX1
AUX2
AUX3
AUX4
X1 14
1850 BK
G218

4915081

## Upfitter Provision Schematics (Starter Interupt Provisions)

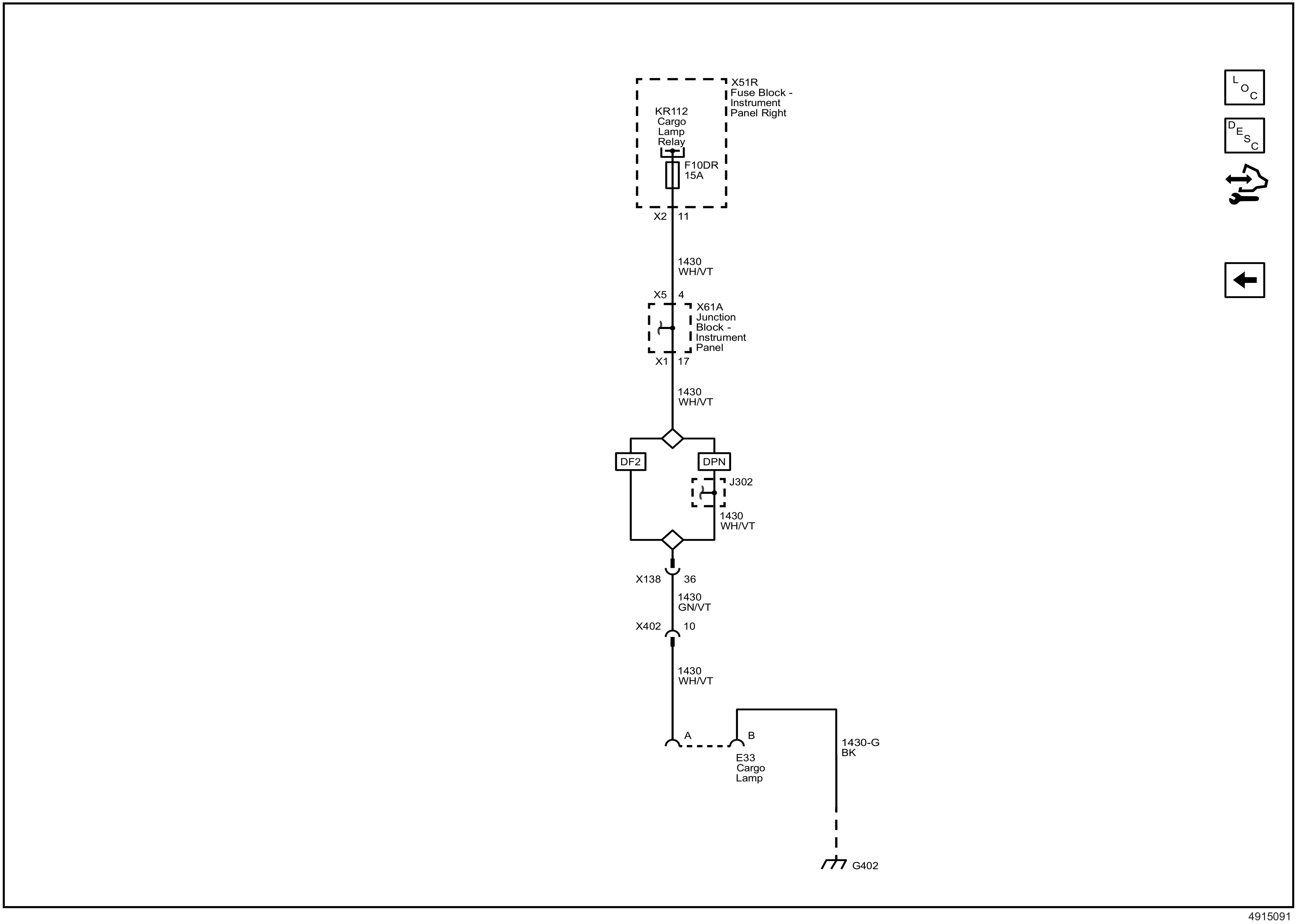

X50A
Fuse Block -
Underhood
KR73
Ignition
Main
Relay
F37UA
5A
X1
H1
539
VT/GY
W32
BLUNT CUT -
MASTER
DISCONNECT
SWITCH
PROVISION
625
YE/BK
J300
625
YE/BK
625
YE/BK
W33
BLUNT CUT -
MASTER
DISCONNECT
SWITCH
INDICATOR
PROVISION
W31
BLUNT CUT -
CRANK
INHIBIT
PROVISION
4915084

# Upfitter Provision Schematics (Roof Beacon Provisions (TRW))


B+
X51R
Fuse Block - Instrument Panel Right
F20DR
30A
X3 1
3140
RD/GN
X319 1
3140
RD/GN
B+
X51L
Fuse Block - Instrument Panel Left
F3DL
10A
X3 2
240
RD/YE
X316 17
240
RD/YE
Interior Lights Dimming Schematics
6817
YE
3
2
S63
Roof
Beacon
Switch
4
1
5990
WH/BK
C1
C2
KR58
Roof
Beacon
Relay
A2
A1
5989
GN/BU
1050
BK
1050
BK
W11
Blunt Cut - Roof Beacon Provision
1050
BK
G210

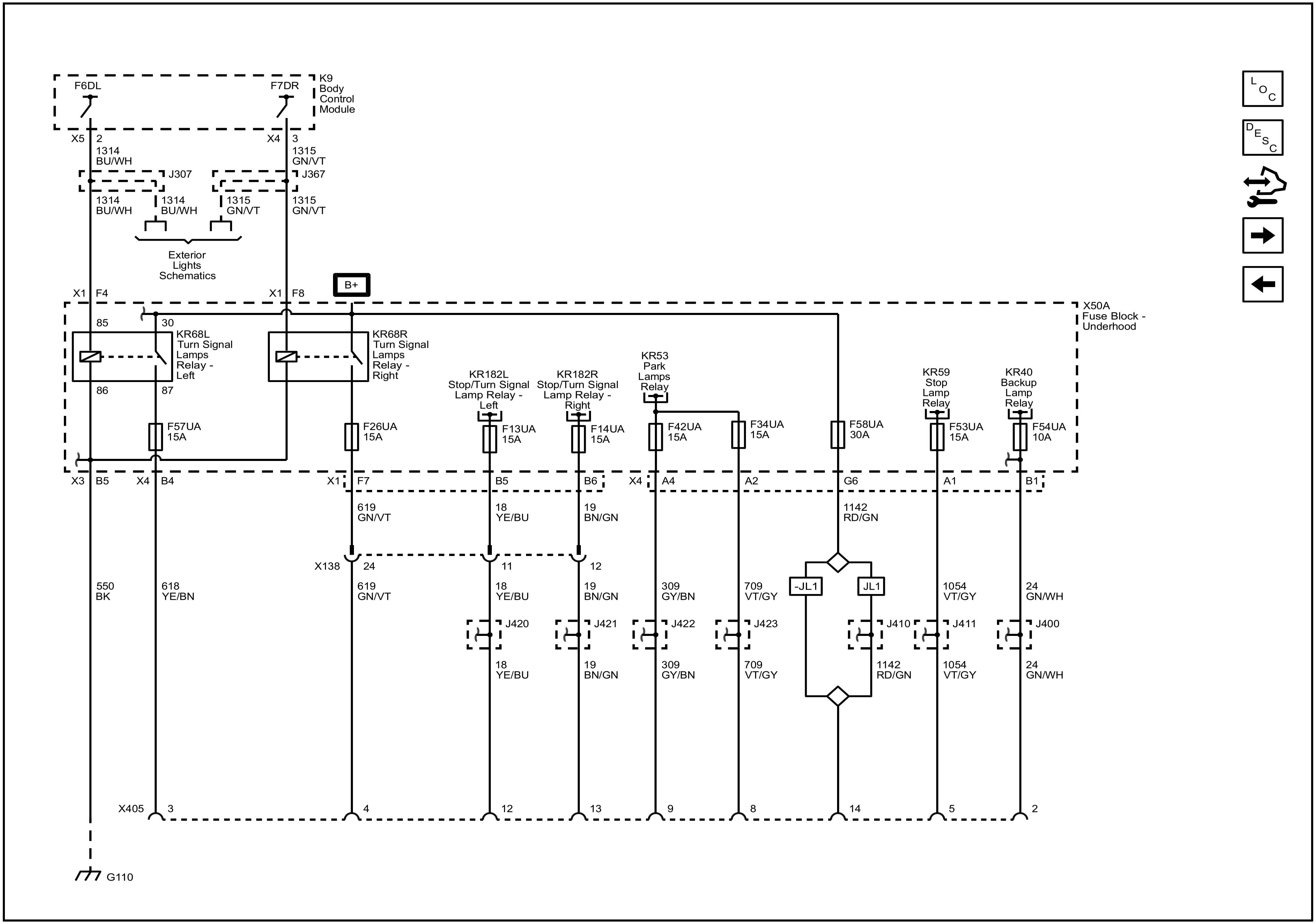
4915088

## Upfitter Provision Schematics (Cargo Lamp Provision)



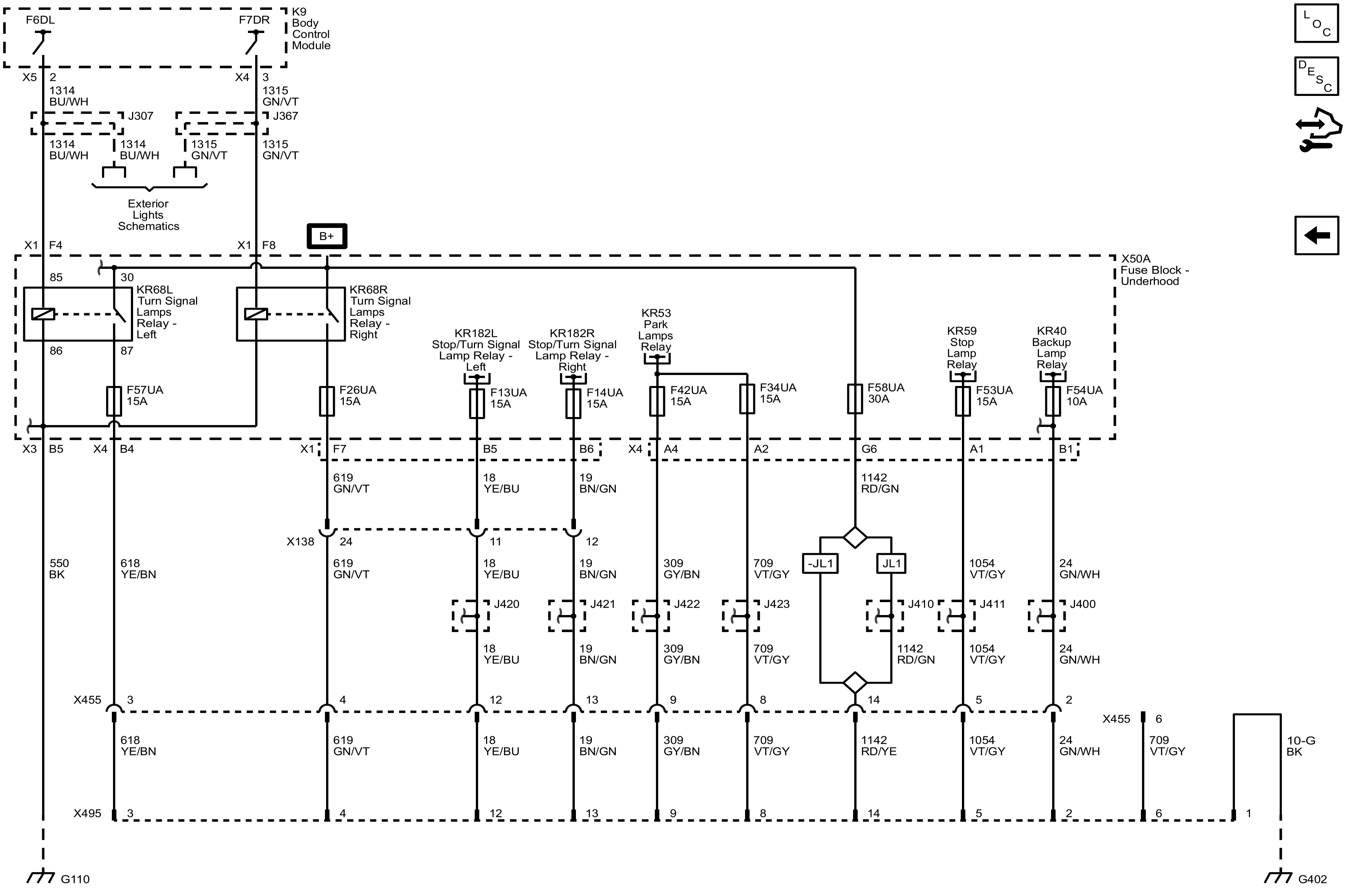
L O C
D E S C
X51R
Fuse Block - Instrument Panel Right
KR112
Cargo Lamp Relay
F10DR
15A
X2
11
1430
WH/VT
X5
4
X61A
Junction Block - Instrument Panel
X1
17
1430
WH/VT
DF2
DPN
J302
1430
WH/VT
X138
36
1430
GN/VT
X402
10
1430
WH/VT
A
B
E33
Cargo Lamp
1430-G
BK
G402
4915091

# Upfitter Provision Schematics (Rear of Cab Provisions (5DX))


K9
Body
Control
Module
F6DL
F7DR
X5 2
X4 3
1314
BU/WH
1315
GN/VT
J307
J367
1314
BU/WH
1314
BU/WH
1315
GN/VT
1315
GN/VT
Exterior
Lights
Schematics
B+
X1 F4
X1 F8
X50A
Fuse Block -
Underhood
85
30
KR68L
Turn Signal
Lamps
Relay -
Left
86
87
KR68R
Turn Signal
Lamps
Relay -
Right
KR182L
Stop/Turn Signal
Lamp Relay -
Left
KR182R
Stop/Turn Signal
Lamp Relay -
Right
KR53
Park
Lamps
Relay
KR59
Stop
Lamp
Relay
KR40
Backup
Lamp
Relay
F57UA
15A
F26UA
15A
F13UA
15A
F14UA
15A
F42UA
15A
F34UA
15A
F58UA
30A
F53UA
15A
F54UA
10A
X3 B5
X4 B4
X1 F7
B5
B6
X4 A4
A2
G6
A1
B1
619
GN/VT
18
YE/BU
19
BN/GN
1142
RD/GN
X138 24
11
12
550
BK
618
YE/BN
619
GN/VT
18
YE/BU
19
BN/GN
309
GY/BN
709
VT/GY
-JL1
JL1
1054
VT/GY
24
GN/WH
J420
J421
J422
J423
J410
J411
J400
18
YE/BU
19
BN/GN
309
GY/BN
709
VT/GY
1142
RD/GN
1054
VT/GY
24
GN/WH
X405 3
4
12
13
9
8
14
5
2
G110

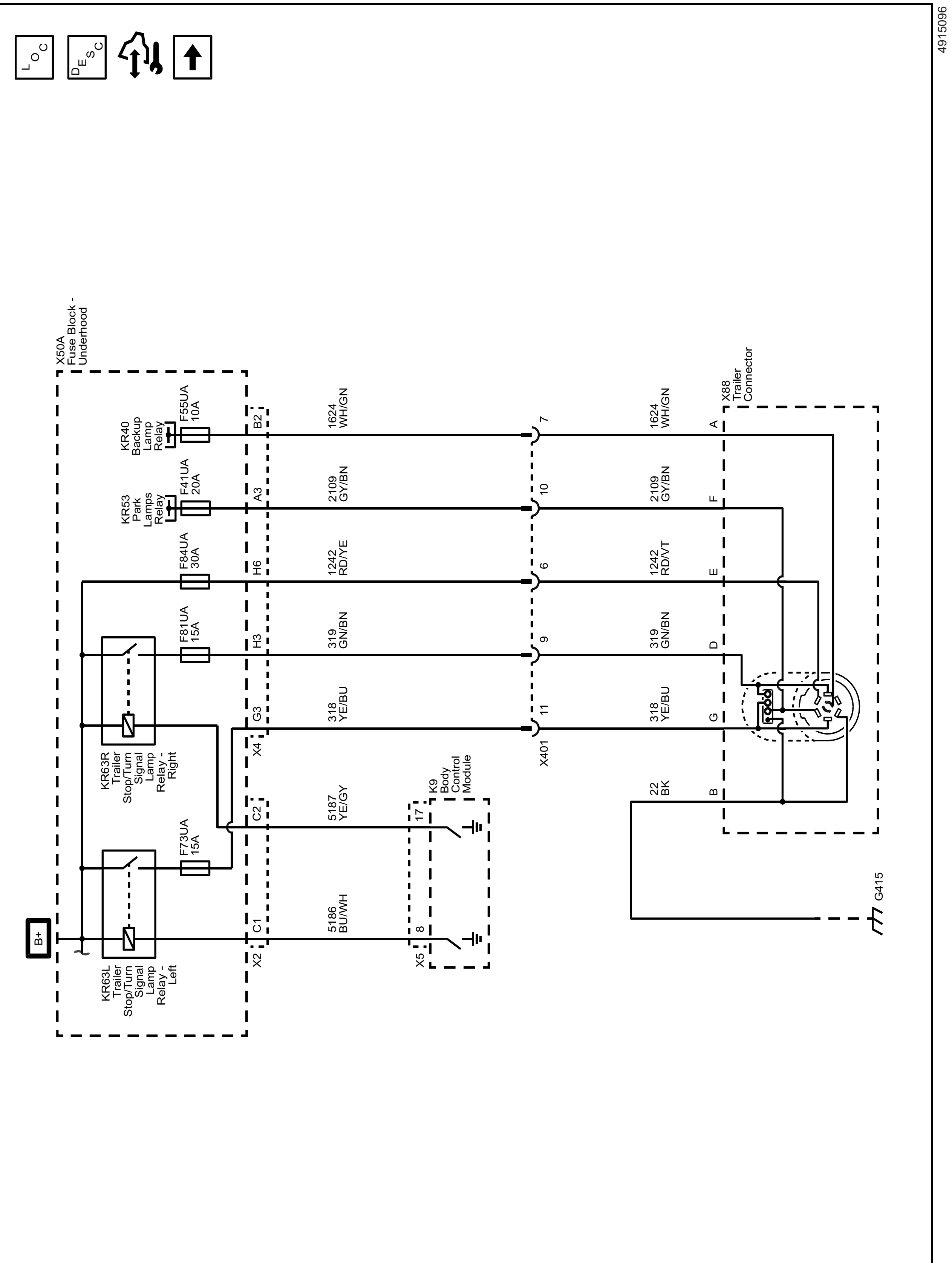
4915093

## Upfitter Provision Schematics (Rear of Frame Provisions (5DY))

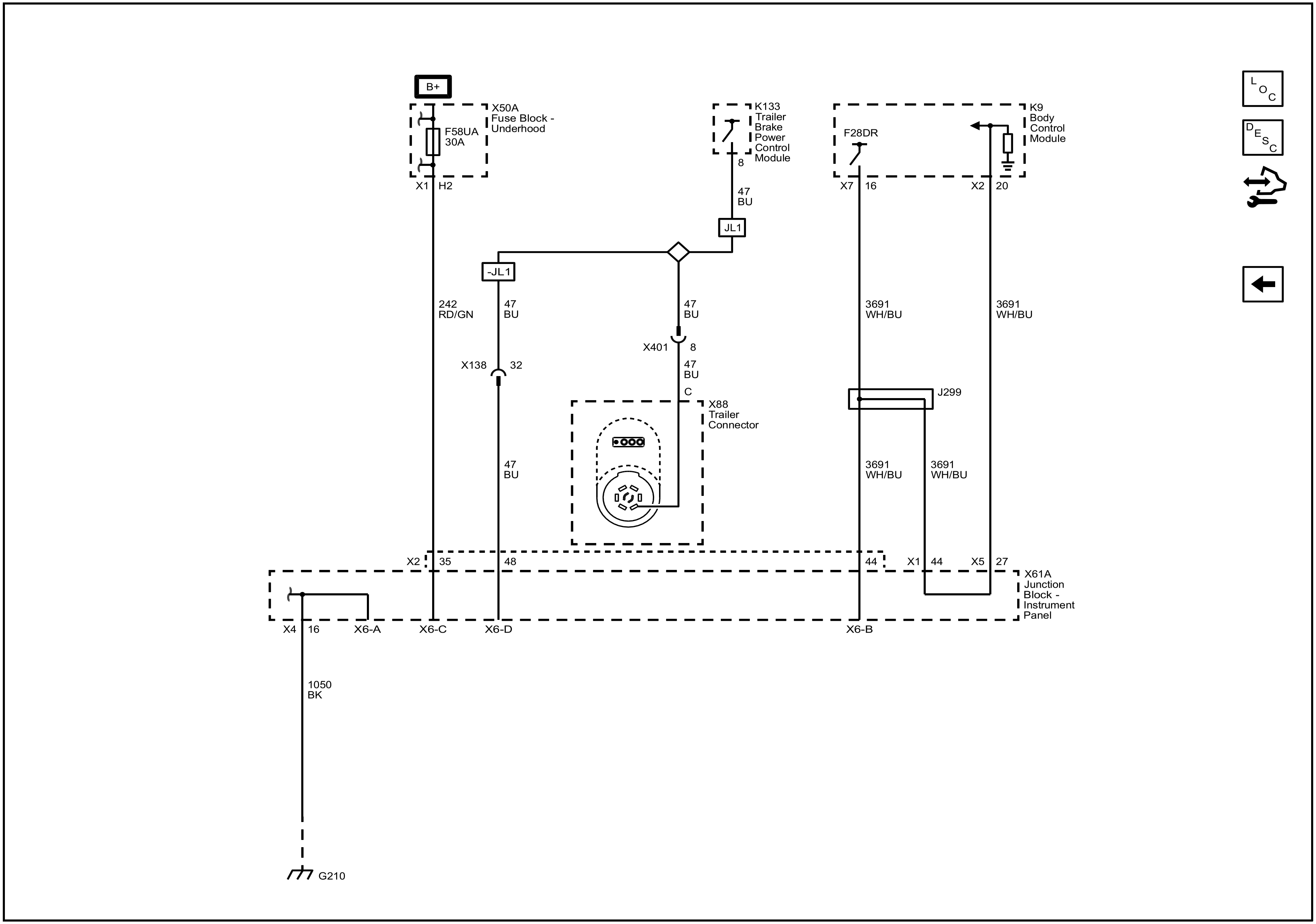

F6DL
F7DR
K9
Body
Control
Module
X5 2
X4 3
1314
BU/WH
1315
GN/VT
J307
J367
1314
BU/WH
1314
BU/WH
1315
GN/VT
1315
GN/VT
Exterior
Lights
Schematics
B+
X1 F4
X1 F8
85
30
KR68L
Turn Signal
Lamps
Relay -
Left
86
87
KR68R
Turn Signal
Lamps
Relay -
Right
X50A
Fuse Block -
Underhood
KR182L
Stop/Turn Signal
Lamp Relay -
Left
KR182R
Stop/Turn Signal
Lamp Relay -
Right
KR53
Park
Lamps
Relay
KR59
Stop
Lamp
Relay
KR40
Backup
Lamp
Relay
F57UA
15A
F26UA
15A
F13UA
15A
F14UA
15A
F42UA
15A
F34UA
15A
F58UA
30A
F53UA
15A
F54UA
10A
X3 B5
X4 B4
X1 F7
B5
B6
X4 A4
A2
G6
A1
B1
619
GN/VT
18
YE/BU
19
BN/GN
1142
RD/GN
X138
24
11
12
550
BK
618
YE/BN
619
GN/VT
18
YE/BU
19
BN/GN
309
GY/BN
709
VT/GY
-JL1
JL1
1054
VT/GY
24
GN/WH
J420
J421
J422
J423
J410
J411
J400
18
YE/BU
19
BN/GN
309
GY/BN
709
VT/GY
1142
RD/GN
1054
VT/GY
24
GN/WH
X455
3
4
12
13
9
8
14
5
2
X455 6
618
YE/BN
619
GN/VT
18
YE/BU
19
BN/GN
309
GY/BN
709
VT/GY
1142
RD/YE
1054
VT/GY
24
GN/WH
709
VT/GY
10-G
BK
X495
3
4
12
13
9
8
14
5
2
6
1
G110
G402
L O C
D E S C

4915095

## Trailer Connector/Provision Schematics (Trailer Connector Pins: A, B, D, E, F, G (UY7))


4915096
LOC
DESC
X50A Fuse Block - Underhood
KR40 Backup Lamp Relay
F55UA 10A
KR53 Park Lamps Relay
F41UA 20A
F84UA 30A
F81UA 15A
KR63R Trailer Stop/Turn Signal Lamp Relay - Right
F73UA 15A
B+
KR63L Trailer Stop/Turn Signal Lamp Relay - Left
B2
A3
H6
H3
G3
X4
C2
C1
X2
1624 WH/GN
2109 GY/BN
1242 RD/YE
319 GN/BN
318 YE/BU
5187 YE/GY
5186 BU/WH
K9 Body Control Module
17
8
X5
7
10
6
9
11
X401
1624 WH/GN
2109 GY/BN
1242 RD/VT
319 GN/BN
318 YE/BU
22 BK
A
F
E
D
G
B
X88 Trailer Connector
G415

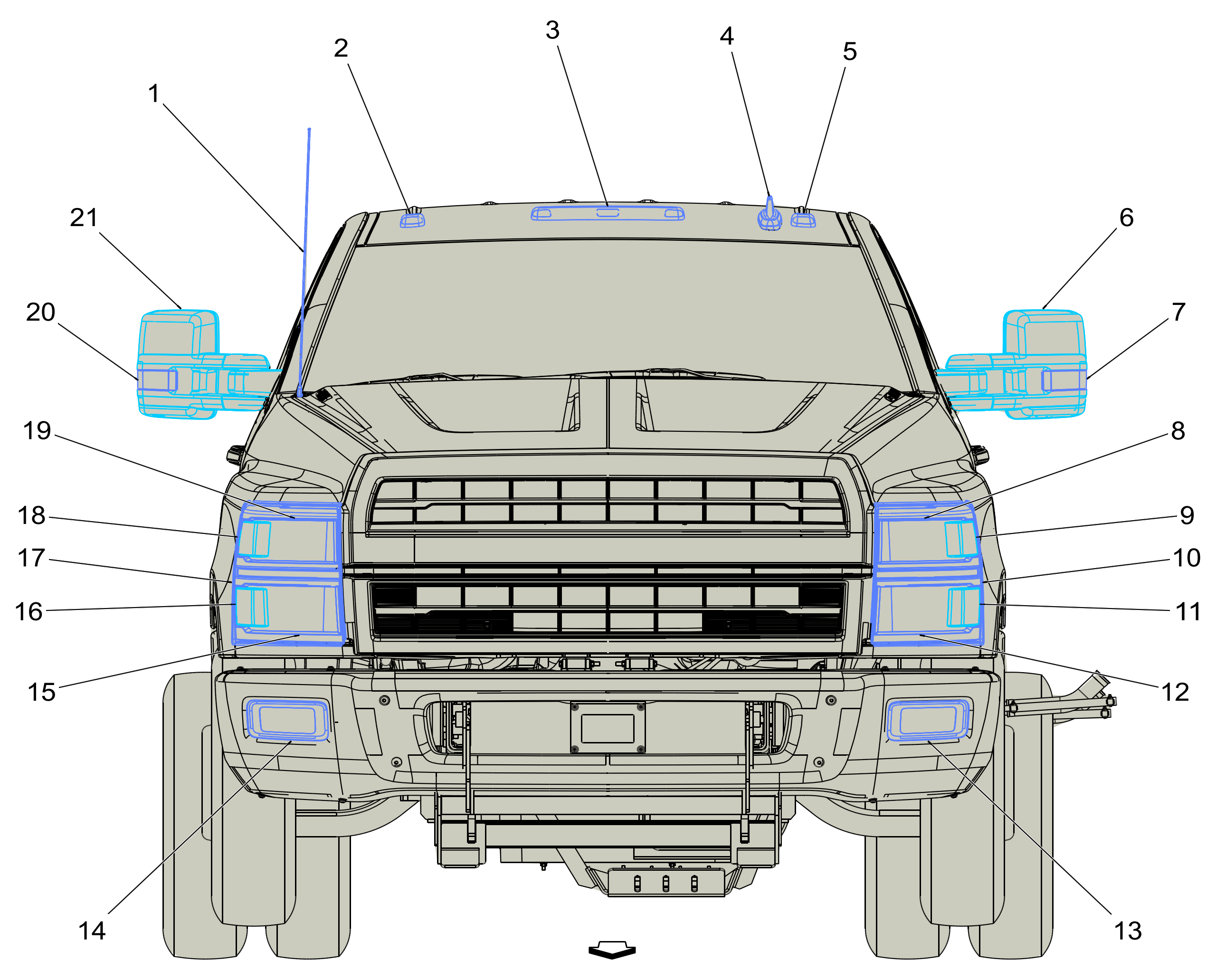
# Trailer Connector/Provision Schematics (Trailer Connector Pin: C (UY7))


B+
X50A
Fuse Block -
Underhood
F58UA
30A
X1
H2
242
RD/GN
K133
Trailer
Brake
Power
Control
Module
8
47
BU
JL1
-JL1
47
BU
X138
32
47
BU
47
BU
X401
8
47
BU
C
X88
Trailer
Connector
K9
Body
Control
Module
F28DR
X7
16
X2
20
3691
WH/BU
3691
WH/BU
J299
3691
WH/BU
3691
WH/BU
X2
35
48
44
X1
44
X5
27
X61A
Junction
Block -
Instrument
Panel
X4
16
X6-A
X6-C
X6-D
X6-B
1050
BK
G210
LOC
DESC
4915097

# Component Locator

## Front of Vehicle/Engine Compartment Component Views

### Front of Vehicle Components



4976265

**Items**

(1) T4M Radio Antenna

(2) E3E Roof Clearance Lamp - Right Front Outer

(3) E3C Roof Clearance Lamp - Front Middle

(4) T2RF Antenna - Roof Front (IO6/U2K/UE1)

(5) E3A Roof Clearance Lamp - Left Front Outer

(6) A9A Outside Rearview Mirror - Driver

(7) E2LM Side Marker Lamp - Left Middle (DPN)

(8) E4G Headlamp - Left Low Beam

(9) E4S Park/Turn Signal Lamp - Left Upper

(10) E13LA Headlamp Assembly - Left

(11) E4Q Park/Turn Signal Lamp - Left Lower

(12) E4E Headlamp - Left High Beam

(13) E29LF Fog Lamp - Left Front (T3U)

(14) E29RF Fog Lamp - Right Front (T3U)

(15) E4F Headlamp - Right High Beam

(16) E4R Park/Turn Signal Lamp - Right Lower

(17) E13RA Headlamp Assembly - Right

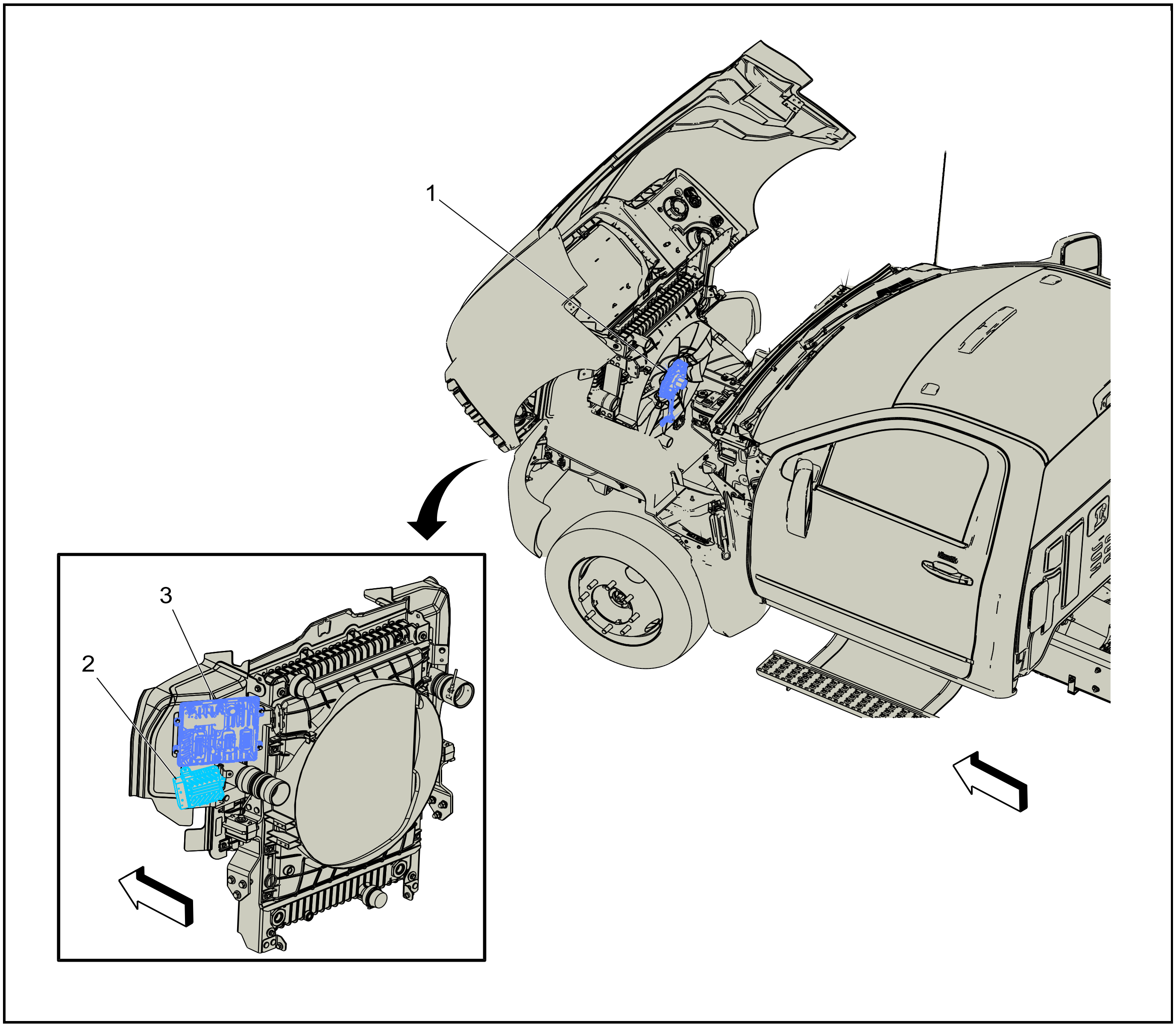
(18) E4T Park/Turn Signal Lamp - Right Upper

(19) E4H Headlamp - Right Low Beam

(20) E2RM Side Marker Lamp - Right Middle (DPN)

(21) A9B Outside Rearview Mirror - Passenger

## Radiator Support Components



4975670

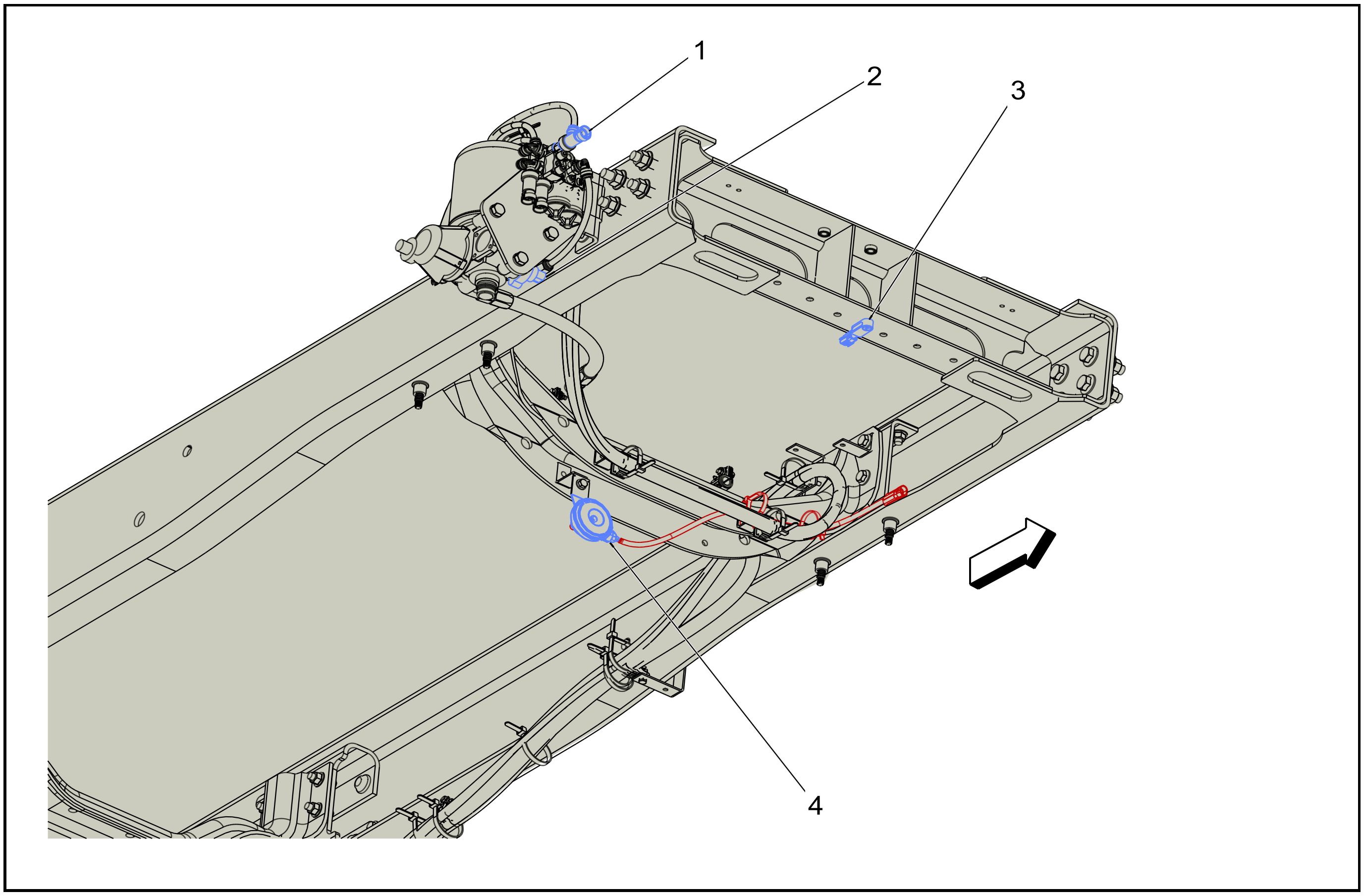
**Items**

(1) Q85 Cooling Fan Clutch

(2) K71 Transmission Control Module

(3) K20 Engine Control Module

## Front of Frame Components



**Items**

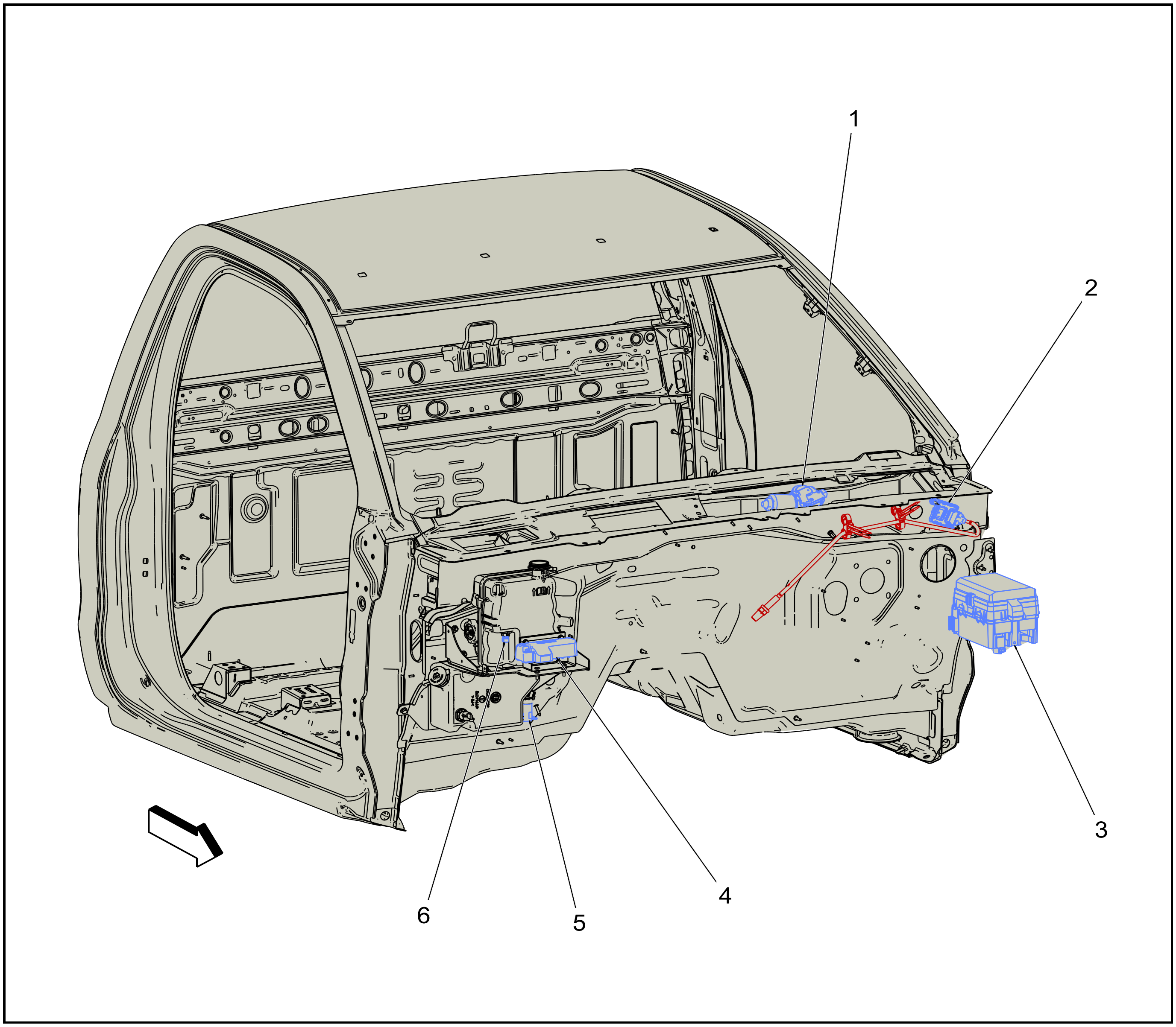
(1) B353 Air Suspension Low Pressure Warning Switch (G40/GP1/GP8)

(2) E91 Air Dryer Valve Heater (JPY)

(3) B59 Front Impact Sensor

(4) P12 Horn

## Bulkhead Components - Engine Compartment

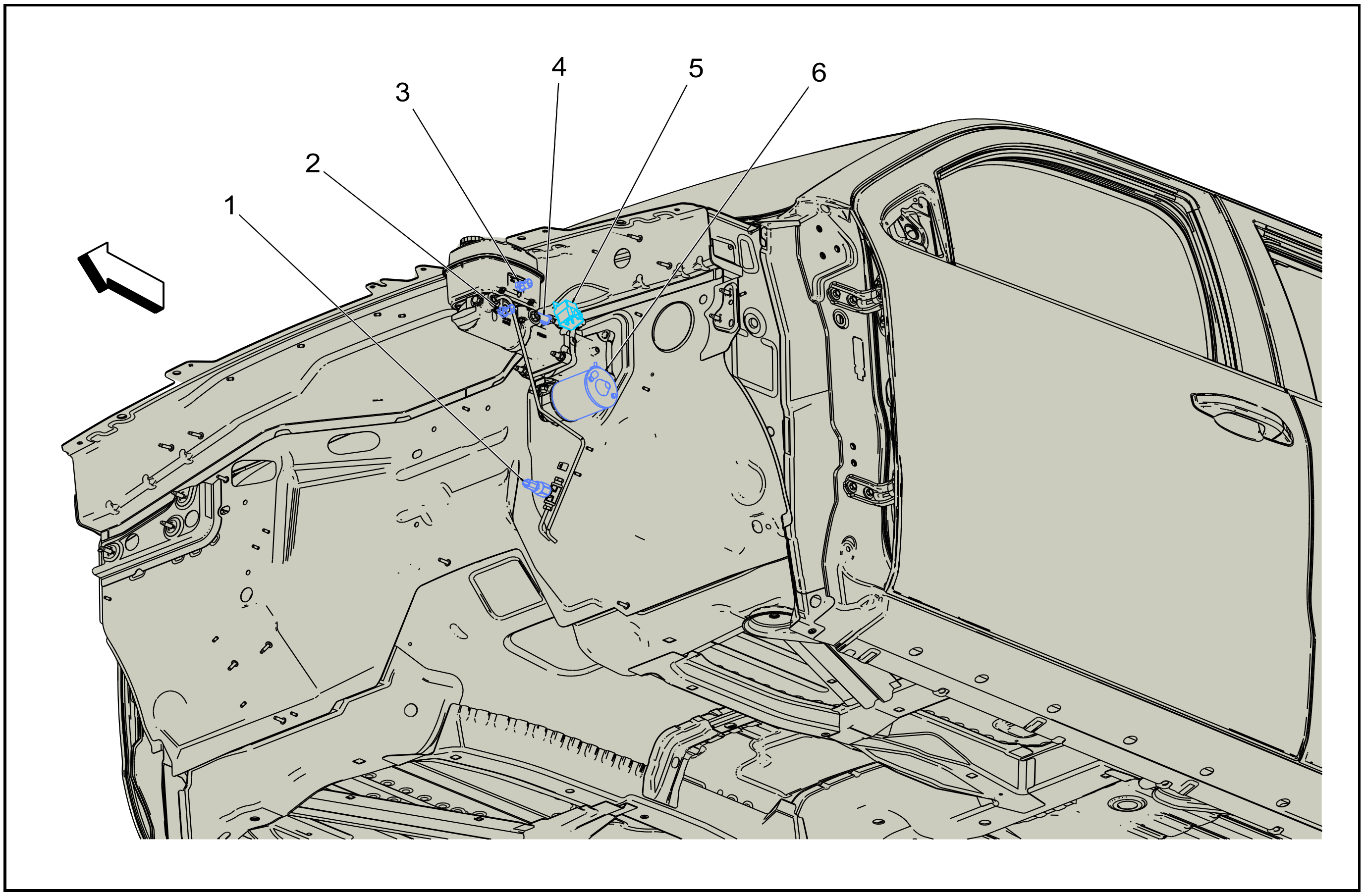


4992542

**Items**

| | |
|---|---|
| (1) | M75 Windshield Wiper Motor |
| (2) | B195A Nitrogen Oxides Sensor 1 |
| (3) | X50A Fuse Block - Underhood |
| (4) | X50D Fuse Block - Battery |
| (5) | G24 Windshield Washer Pump |
| (6) | B33 Engine Coolant Level Switch |

## Brake Booster Components

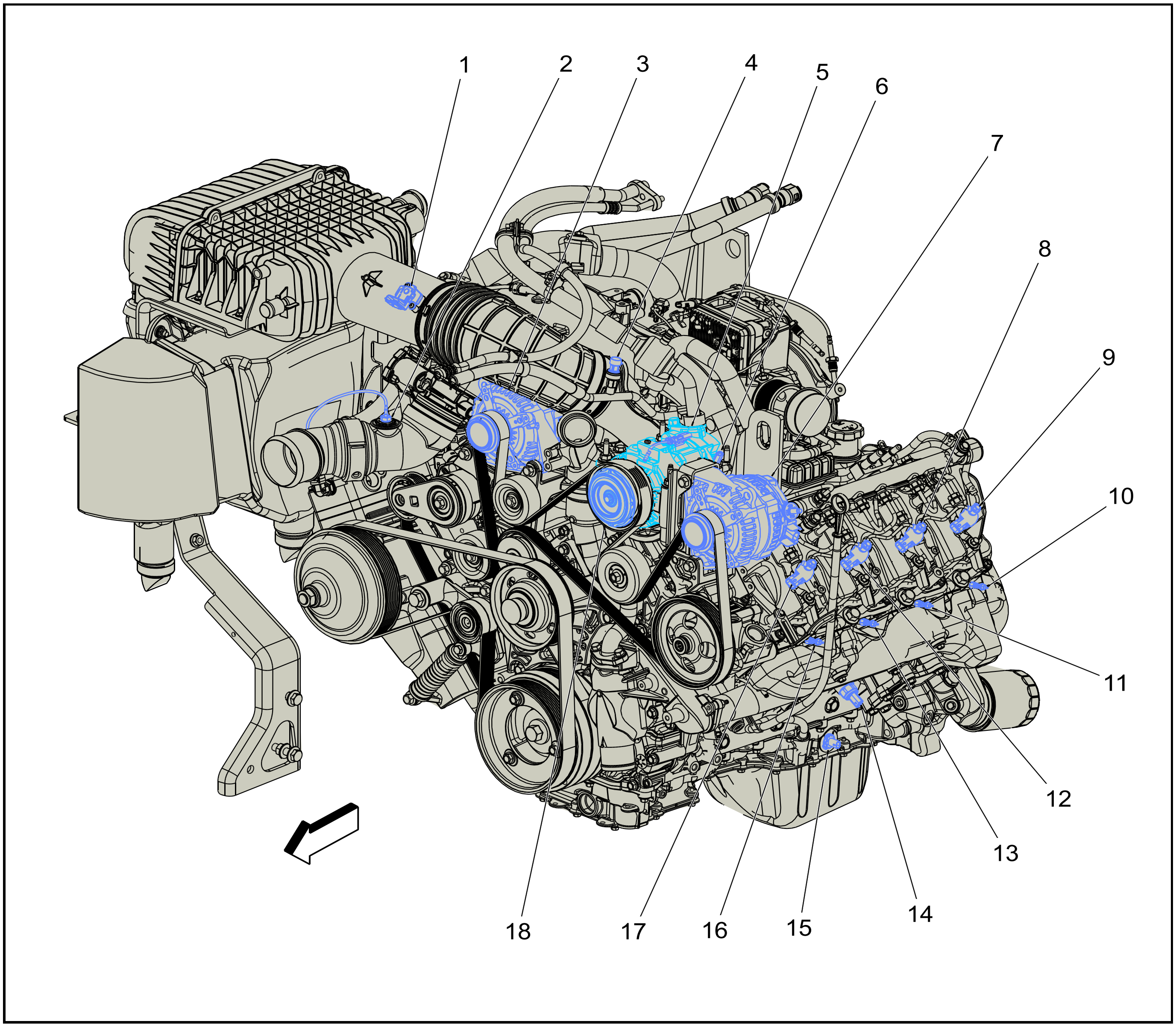


**Items**

| | |
|---|---|
| (1) | B356 Brake Pipe Pressure Switch |
| (2) | B21C Brake Pressure Differential Switch |
| (3) | B20 Brake Fluid Level Switch |
| (4) | B343 Brake Booster Fluid Flow Switch |
| (5) | KR14 Brake Booster Pump Motor Relay |
| (6) | M9 Brake Booster Pump Motor |

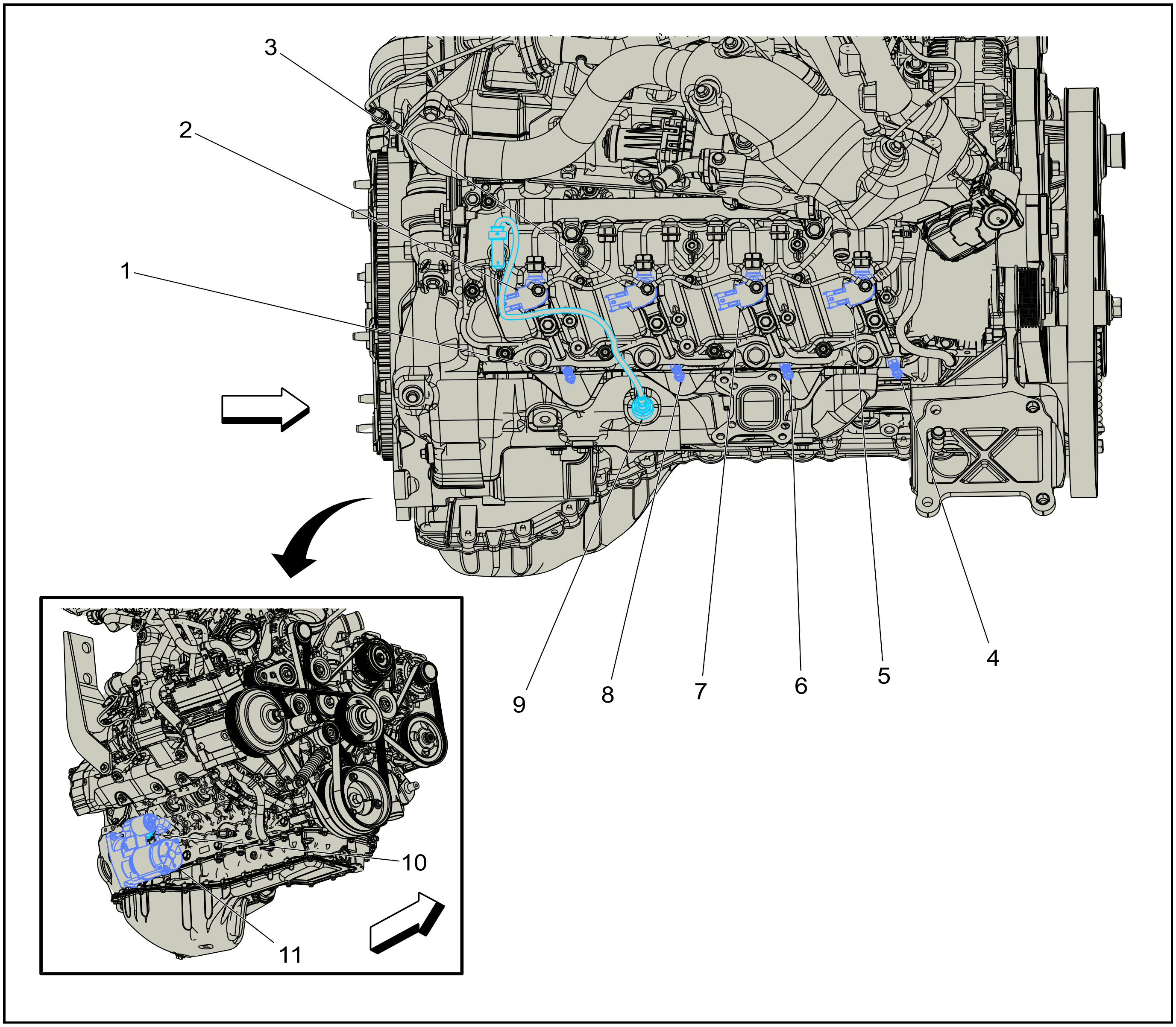
# Powertrain Component Views

## Left Front of Engine Components



| Items | |
|---|---|
| (1) | B75C Multifunction Intake Air Sensor |
| (2) | B193B Charge Air Cooler Outlet Temperature Sensor |
| (3) | G13 Generator |
| (4) | B1 A/C Refrigerant Pressure Sensor (C67) |
| (5) | G1 A/C Compressor (C67) |
| (6) | Q46 A/C Compressor Solenoid Valve (C67) |
| (7) | G13E Generator - Auxiliary (KHB) |
| (8) | Q17F Fuel Injector 6 |
| (9) | Q17H Fuel Injector 8 |
| (10) | E12H Glow Plug 8 |
| (11) | E12F Glow Plug 6 |
| (12) | Q17D Fuel Injector 4 |
| (13) | E12D Glow Plug 4 |
| (14) | B37B Engine Oil Pressure Sensor |
| (15) | B35 Engine Oil Level Switch |
| (16) | E12B Glow Plug 2 |
| (17) | Q17B Fuel Injector 2 |
| (18) | Q2 A/C Compressor Clutch (C67) |

## Right Side of Engine Components

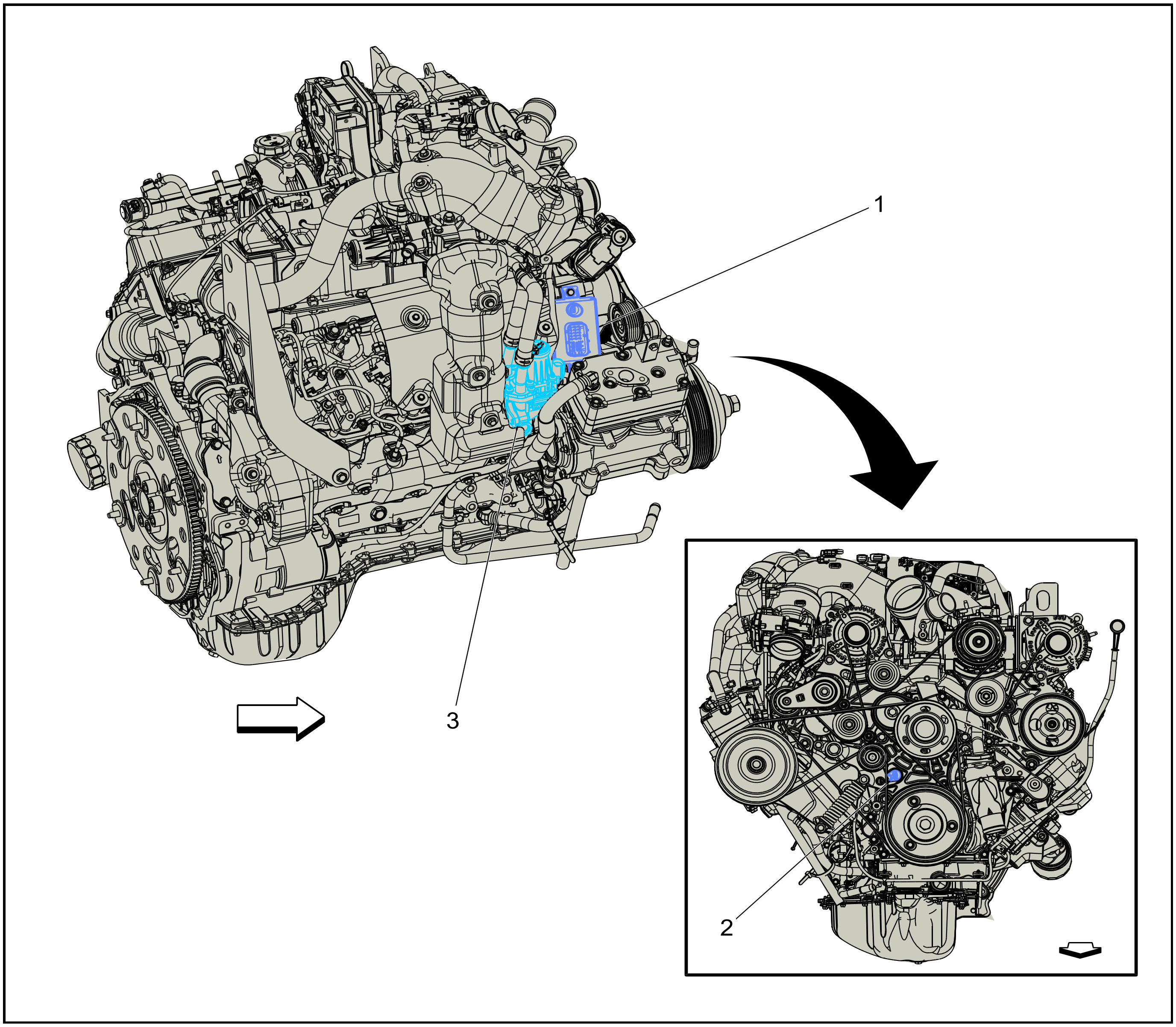


4975672

**Items**

- (1) E12G Glow Plug 7
- (2) Q17G Fuel Injector 7
- (3) Q17E Fuel Injector 5
- (4) E12A Glow Plug 1
- (5) Q17A Fuel Injector 1
- (6) E12C Glow Plug 3
- (7) Q17C Fuel Injector 3
- (8) E12E Glow Plug 5
- (9) B130A Exhaust Gas Recirculation Temperature Sensor 1
- (10) B26 Crankshaft Position Sensor
- (11) M64 Starter Motor

## Front of Engine Components



4975677

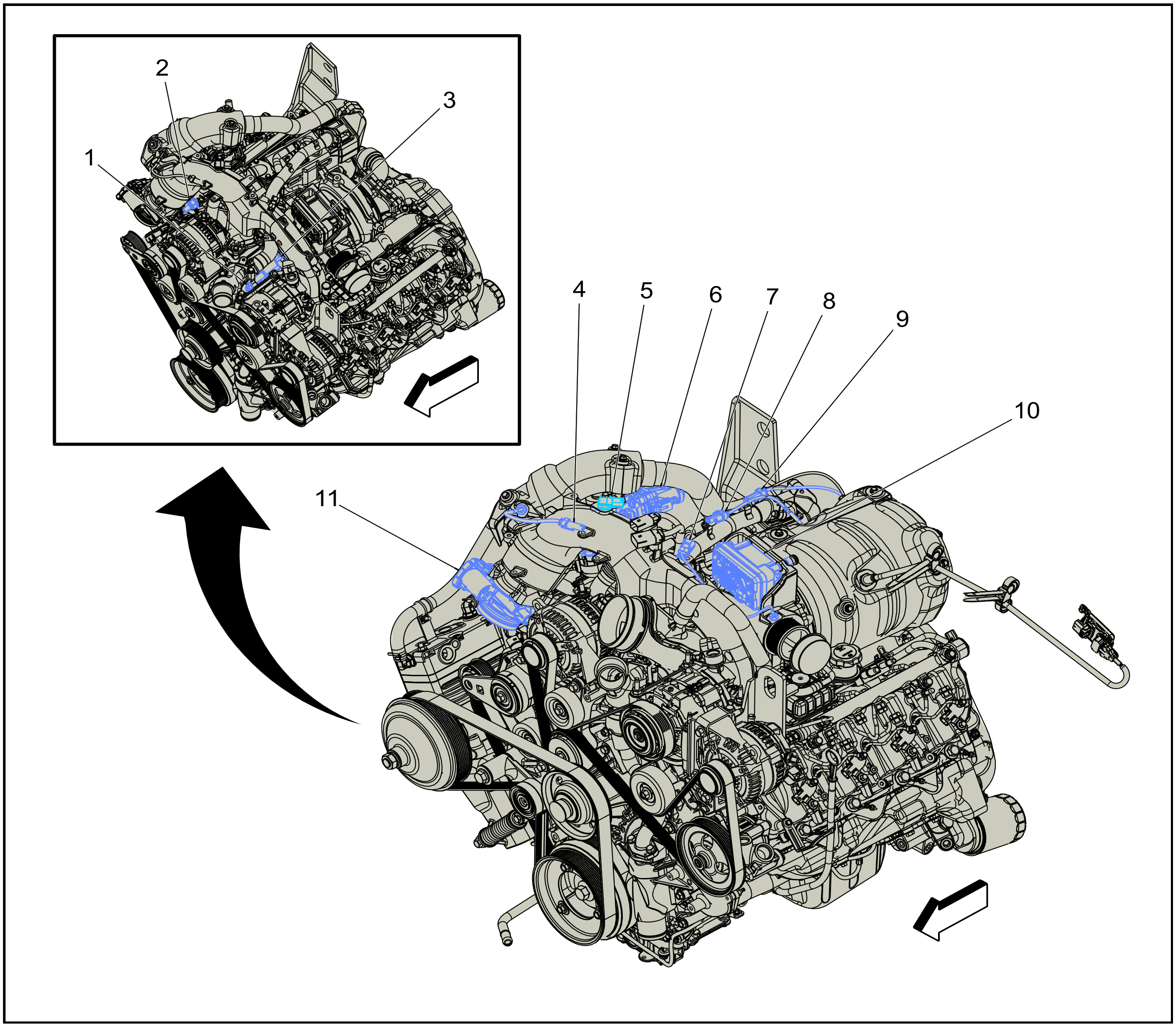
**Items**

(1) K34 Glow Plug Control Module

(2) B23 Camshaft Position Sensor

(3) Q14 Exhaust Gas Recirculation Valve

## Top of Engine Components



4975675

**Items**

(1) B34 Engine Coolant Temperature Sensor

(2) B47B Fuel Rail Pressure Sensor

(3) Q18A Fuel Pressure Regulator 1

(4) B130B Exhaust Gas Recirculation Temperature Sensor 2

(5) B65 Intake Manifold Pressure and Air Temperature Sensor

(6) M114 Exhaust Gas Recirculation Cooler Bypass Valve Actuator

(7) B193A Charge Air Cooler Inlet Temperature Sensor

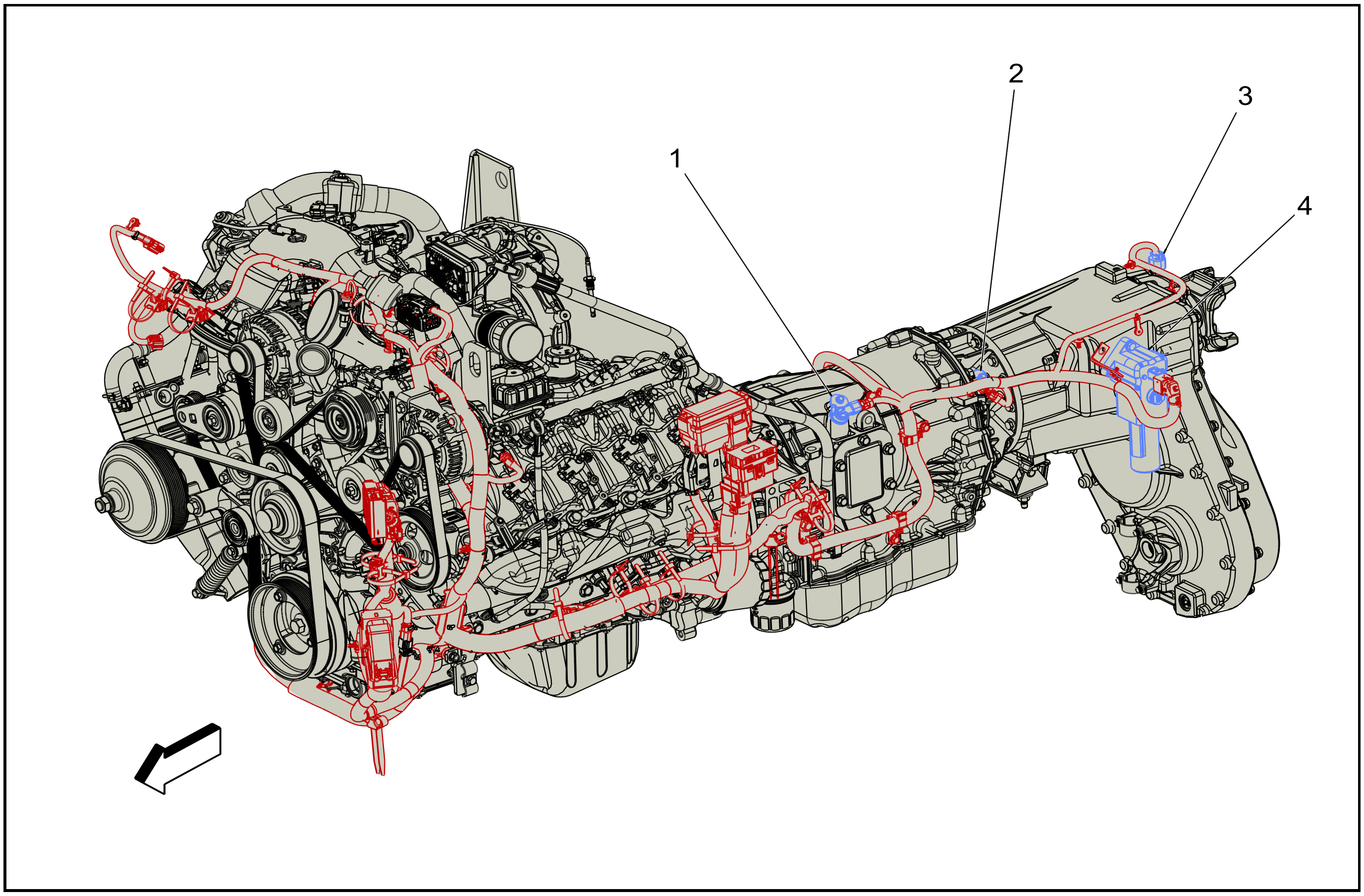
(8) B131A Exhaust Temperature Sensor 1

(9) B131B Exhaust Temperature Sensor 2

(10) M103 Turbocharger Vane Position Actuator

(11) Q20 Intake Air Flow Valve

## Transmission and Transfer Case Components



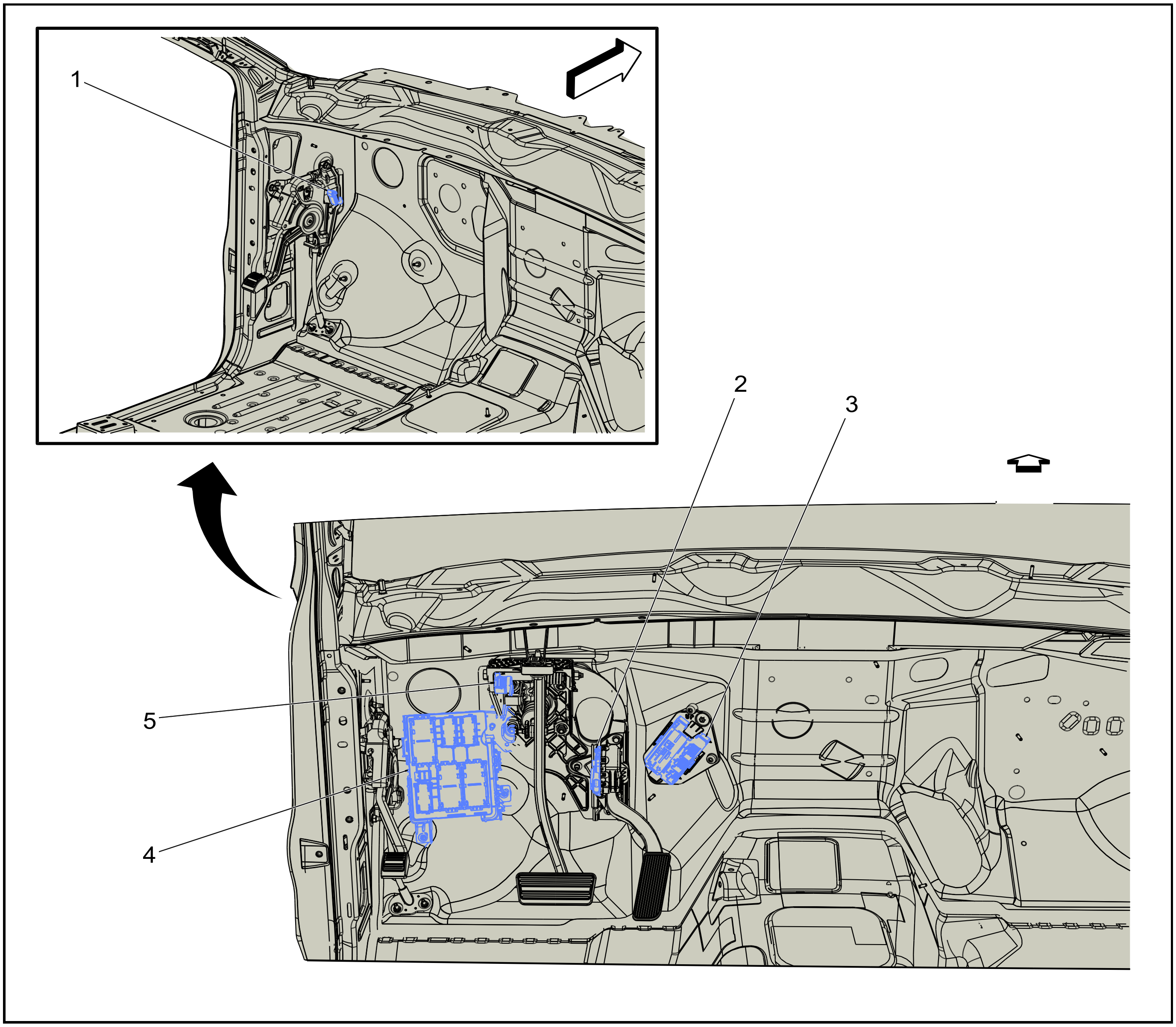
4975681

**Items**

| | |
|---|---|
| (1) | B14B Transmission Turbine Speed Sensor |
| (2) | B14A Transmission Output Shaft Speed Sensor |
| (3) | A16 Transfer Case Motor (NQF) |

# Instrument Panel/Center Console Component Views

## Bulkhead Components - Interior



4975682

**Items**

(1) B80 Park Brake Switch

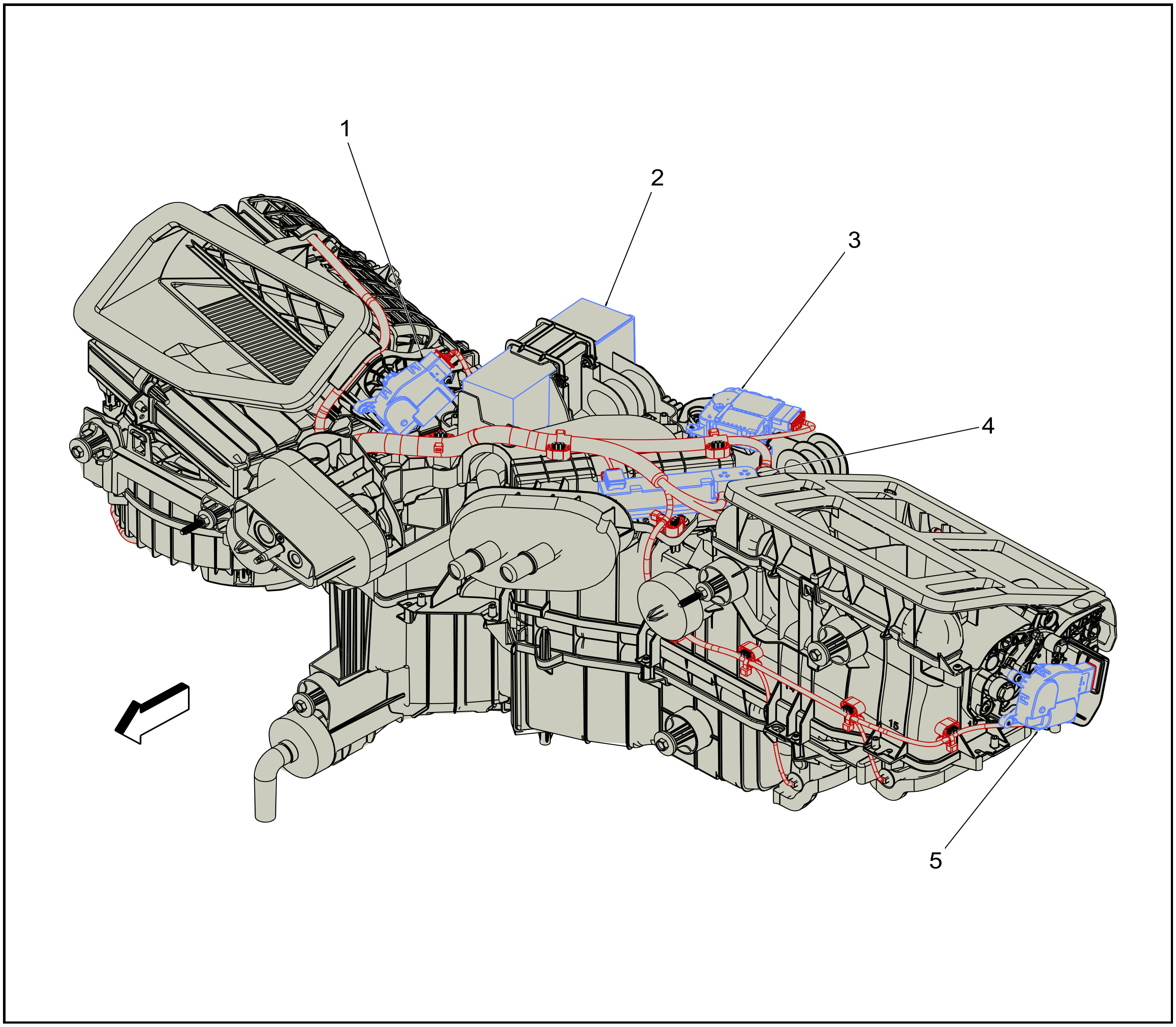
(2) B107 Accelerator Pedal Position Sensor

(3) K69 Transfer Case Control Module (NQF)

(4) X61A Junction Block - Instrument Panel

(5) B22 Brake Pedal Position Sensor

## Front of HVAC Assembly Components

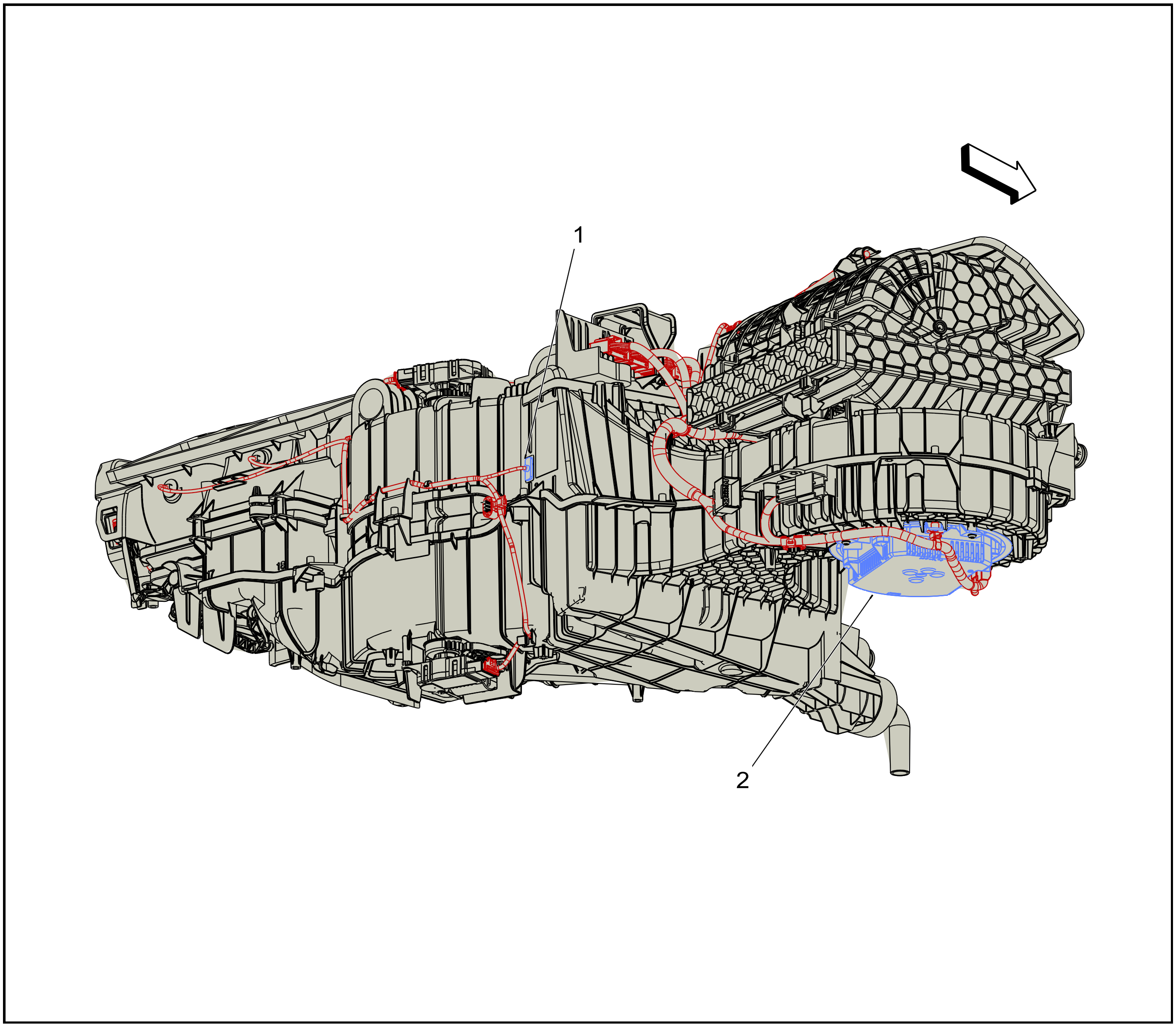


4975558

**Items**

| | |
|---|---|
| (1) | M4 Air Inlet Door Actuator |
| (2) | K33 HVAC Control Module |
| (3) | M6 Air Temperature Door Actuator |
| (4) | E40 Electrical Auxiliary Heater (C32) |
| (5) | M37 Mode Door Actuator |

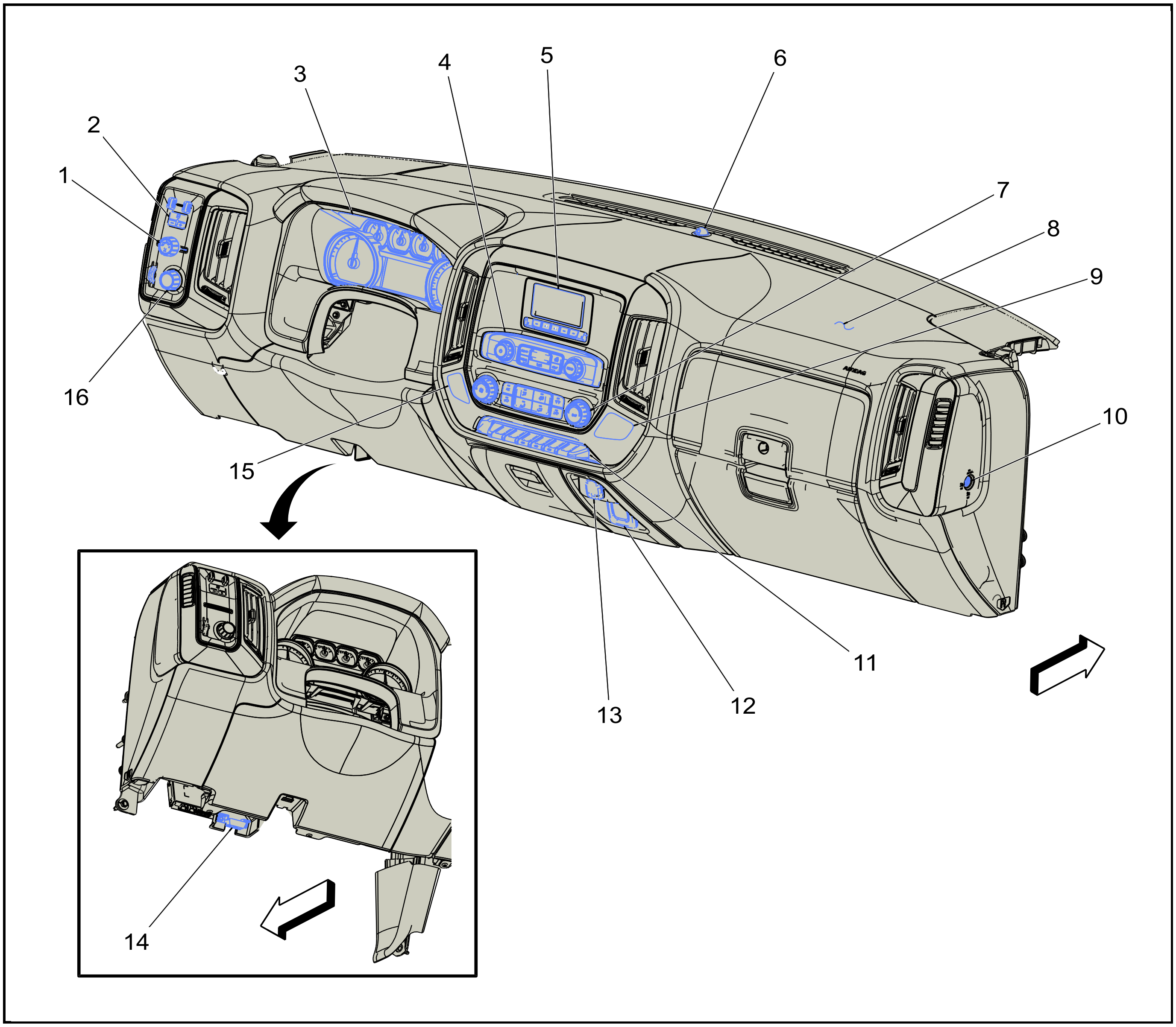
## Back of HVAC Assembly Components



**Items**

| | |
|---|---|
| (1) | B39 A/C Evaporator Temperature Sensor (C67) |
| (2) | M8 Blower Motor |

## Face of Instrument Panel Components

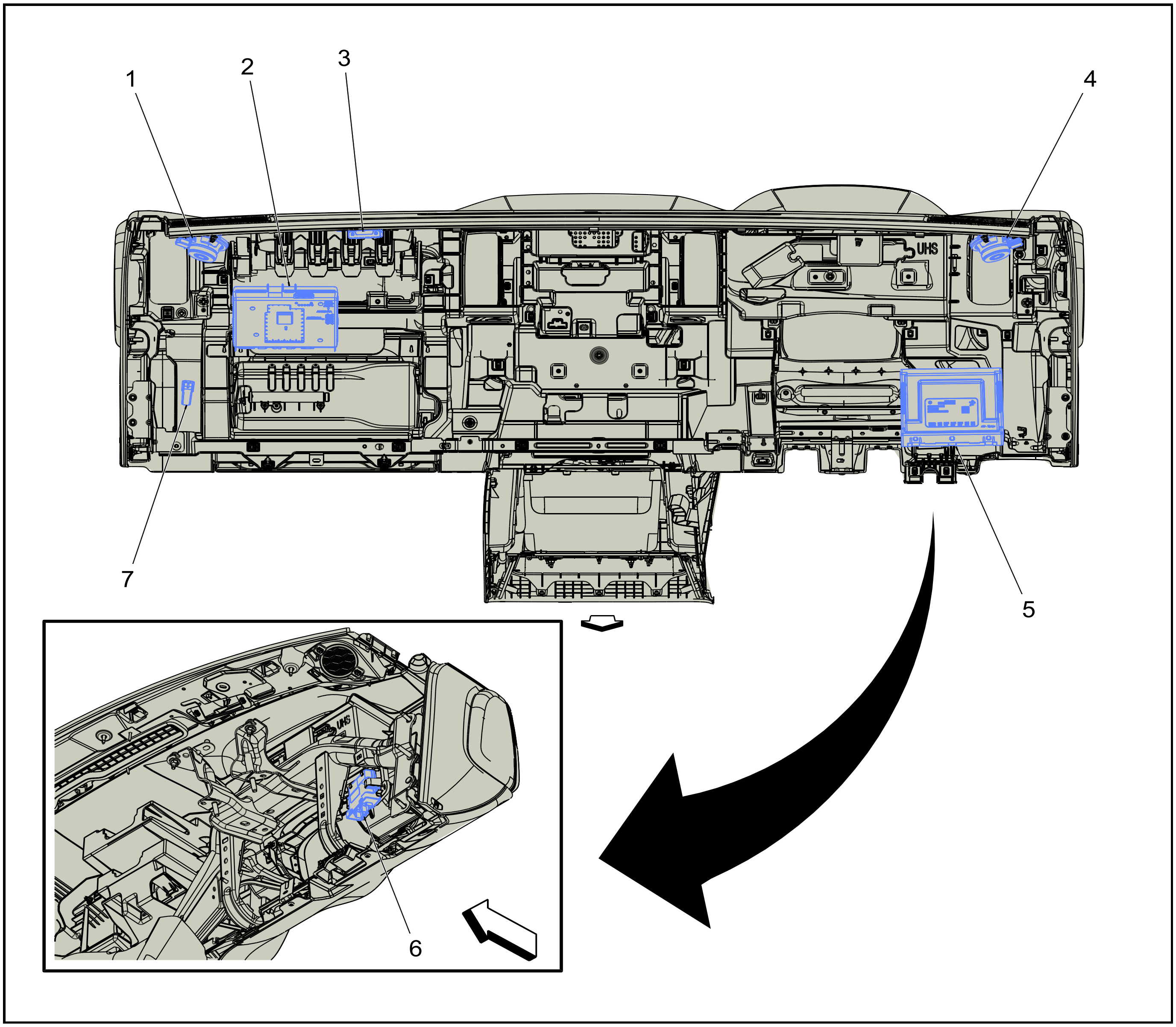


4975567

**Items**

| | |
|---|---|
| (1) | S77 Transfer Case Shift Control Switch (NQF) |
| (2) | S76 Trailer Brake Control Switch (JL1) |
| (3) | P16 Instrument Cluster |
| (4) | A22 Radio Controls |
| (5) | P17 Info Display Module |
| (6) | B10B Ambient Light/Sunload Sensor |
| (7) | A26 HVAC Controls |
| (8) | F101 Passenger Instrument Panel Air Bag |
| (9) | S32P Seat Heating Switch - Passenger (KA1) |
| (10) | S40 Passenger Air Bag Disable Switch (C99) |
| (11) | S48A Multifunction Switch - Instrument Panel |
| (12) | X81 Accessory Power Receptacle - 110V AC (KI4) |
| (13) | X80G Accessory Power Receptacle - Instrument Panel (except D07) |
| (14) | X84 Data Link Connector |
| (15) | S32D Seat Heating Switch - Driver (KA1) |
| (16) | S30 Headlamp Switch |

## Backside of Instrument Panel Components



4975569

**Items**

(1) P19W Speaker - Right Instrument Panel

(2) K74 Human Machine Interface Control Module (IO5/IO6)

(3) T15 Navigation Antenna Signal Splitter (IO6 +UE1)

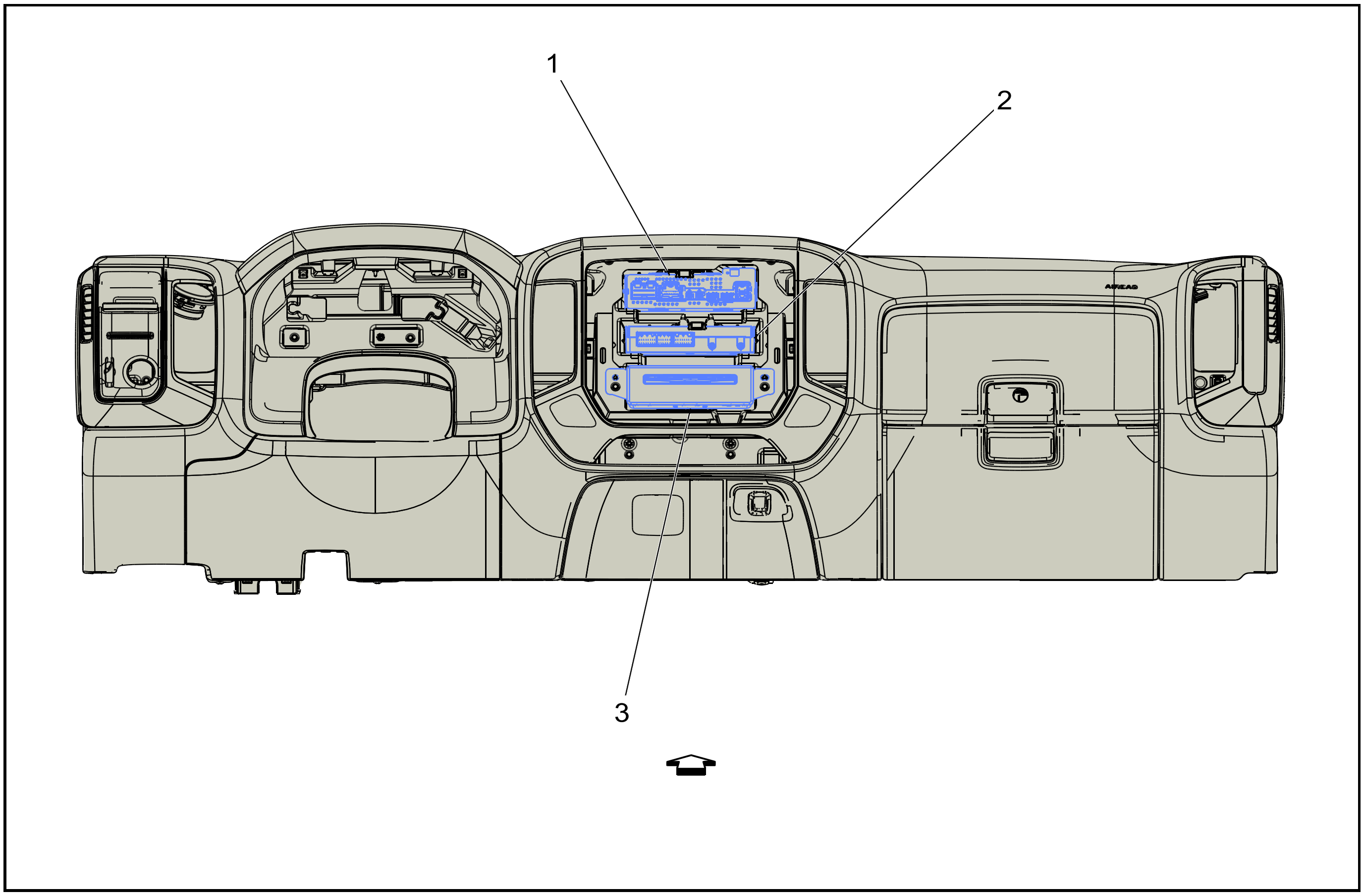
(4) P19J Speaker - Left Instrument Panel

(5) K9 Body Control Module

(6) K56 Serial Data Gateway Module

(7) R6F Terminating Resistor - High Speed Extension Bus 2 (IO5/IO6/UE1)

# Inside Center of Instrument Panel Components



4975571

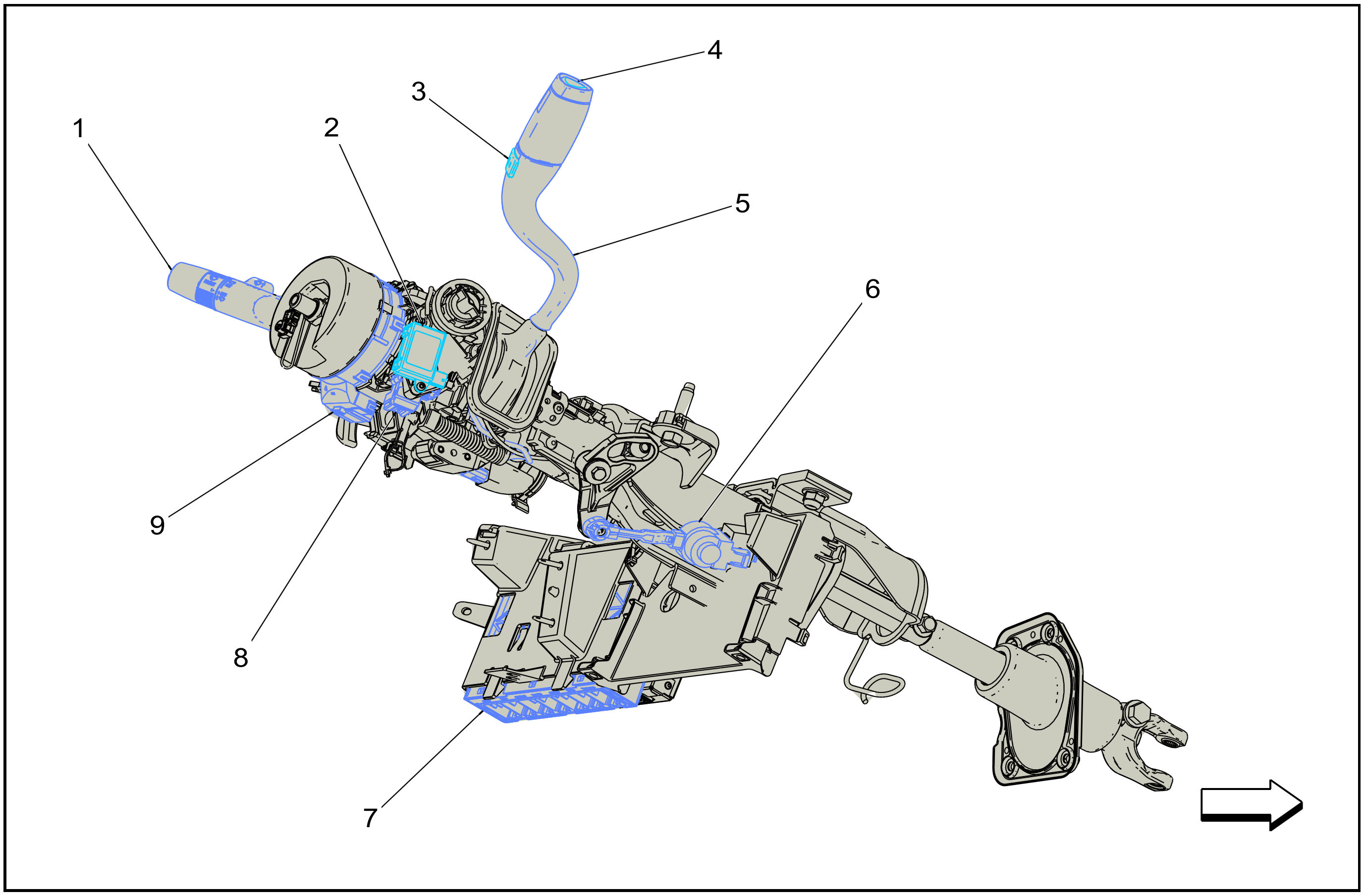
**Items**

(1) A11 Radio

(2) K73 Telematics Communication Interface Control Module (UE1)

(3) A33 Media Disc Player (TG5)

## Steering Column Components

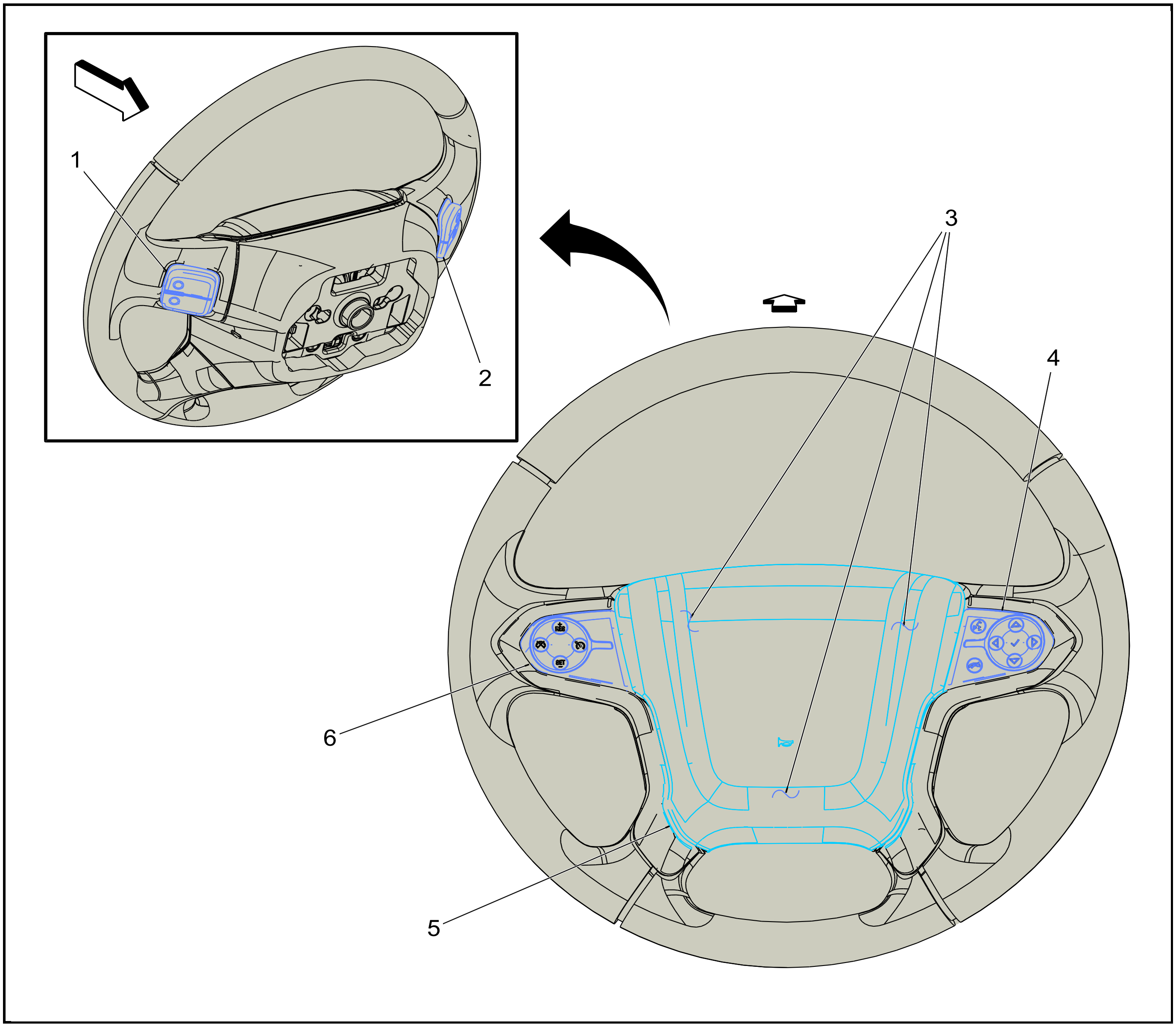


5132062

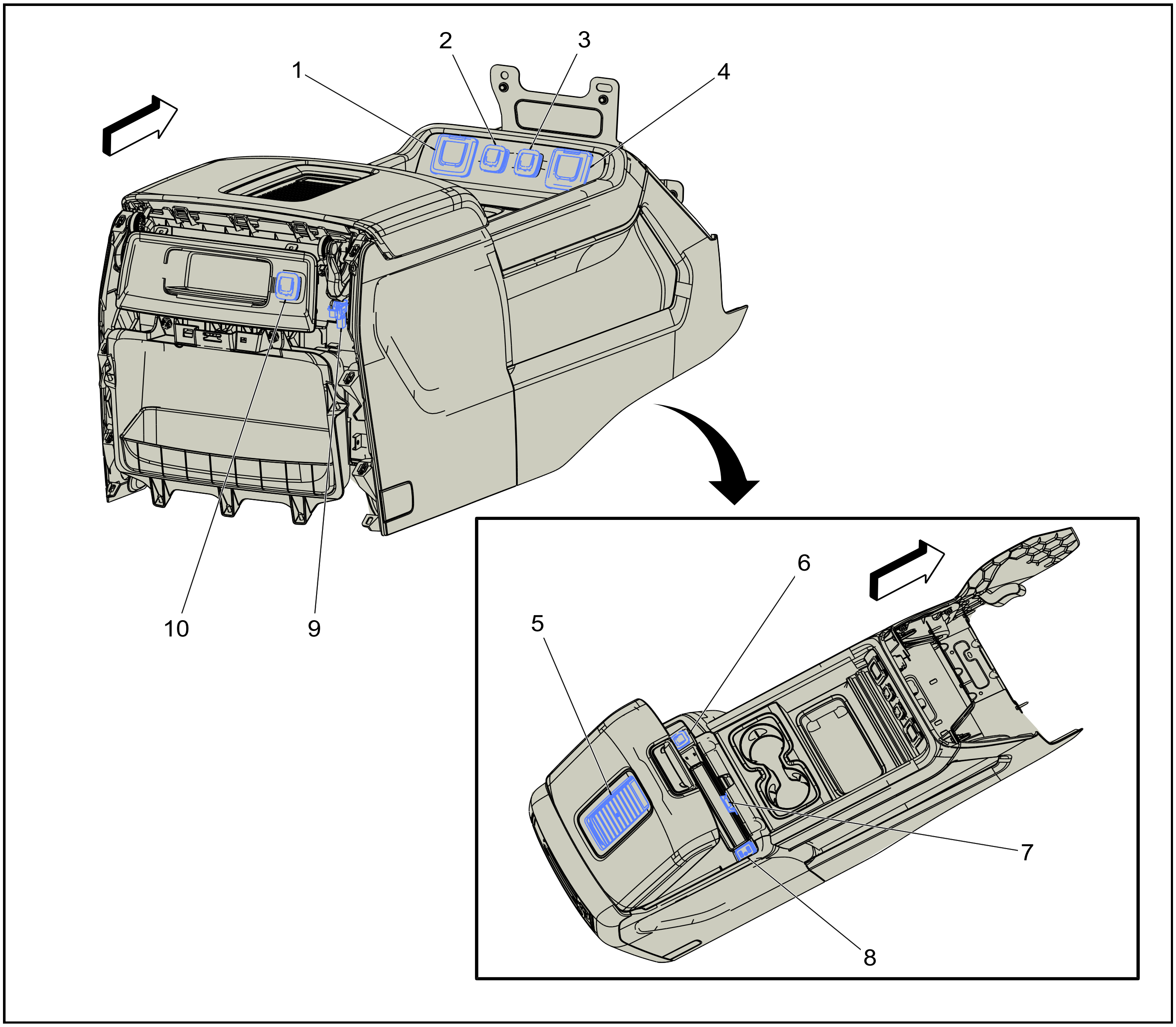
**Items**

(1) S78 Turn Signal/Multifunction Switch
(2) K89 Immobilizer Control Module
(3) S2 Transmission Manual Shift Switch
(4) S74 Tow/Haul Mode Switch
(5) S3 Transmission Shift Lever
(6) M7 Transmission Shift Lock Control Solenoid Actuator
(7) K9 Body Control Module
(8) S39 Ignition Switch
(9) X85 Steering Wheel Air Bag Coil

## Steering Wheel Components



## Floor Console Components (D07)



4975573

**Items**

(1) X92 USB Receptacle (IO5/IO6)

(2) X80J Accessory Power Receptacle - Instrument Panel 1 (D07)

(3) X80K Accessory Power Receptacle - Instrument Panel 2 (D07)

(4) X81 Accessory Power Receptacle - 110V AC (KI4)

(5) T22 Mobile Device Wireless Charger Module (K4C)

(6) X80D Accessory Power Receptacle - Center Console Compartment

(7) E28 Center Console Compartment Lamp (D07)

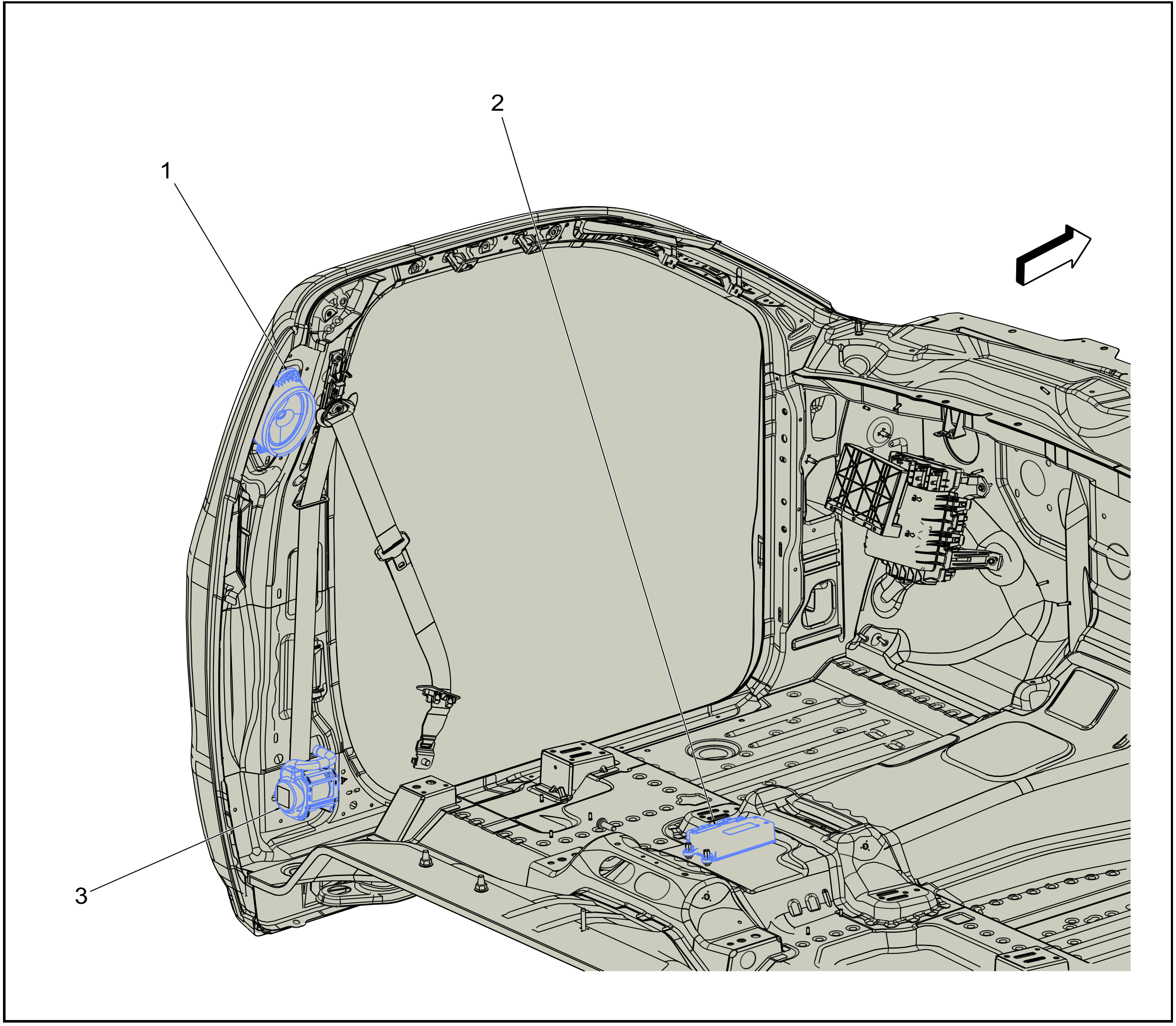
(8) X83 Auxiliary Audio Input

(9) S5 Center Console Compartment Lamp Switch (D07)

(10) X80L Accessory Power Receptacle - Center Console Rear (D07)

# Passenger Compartment/Roof Component Views

## Passenger Compartment Components - Left

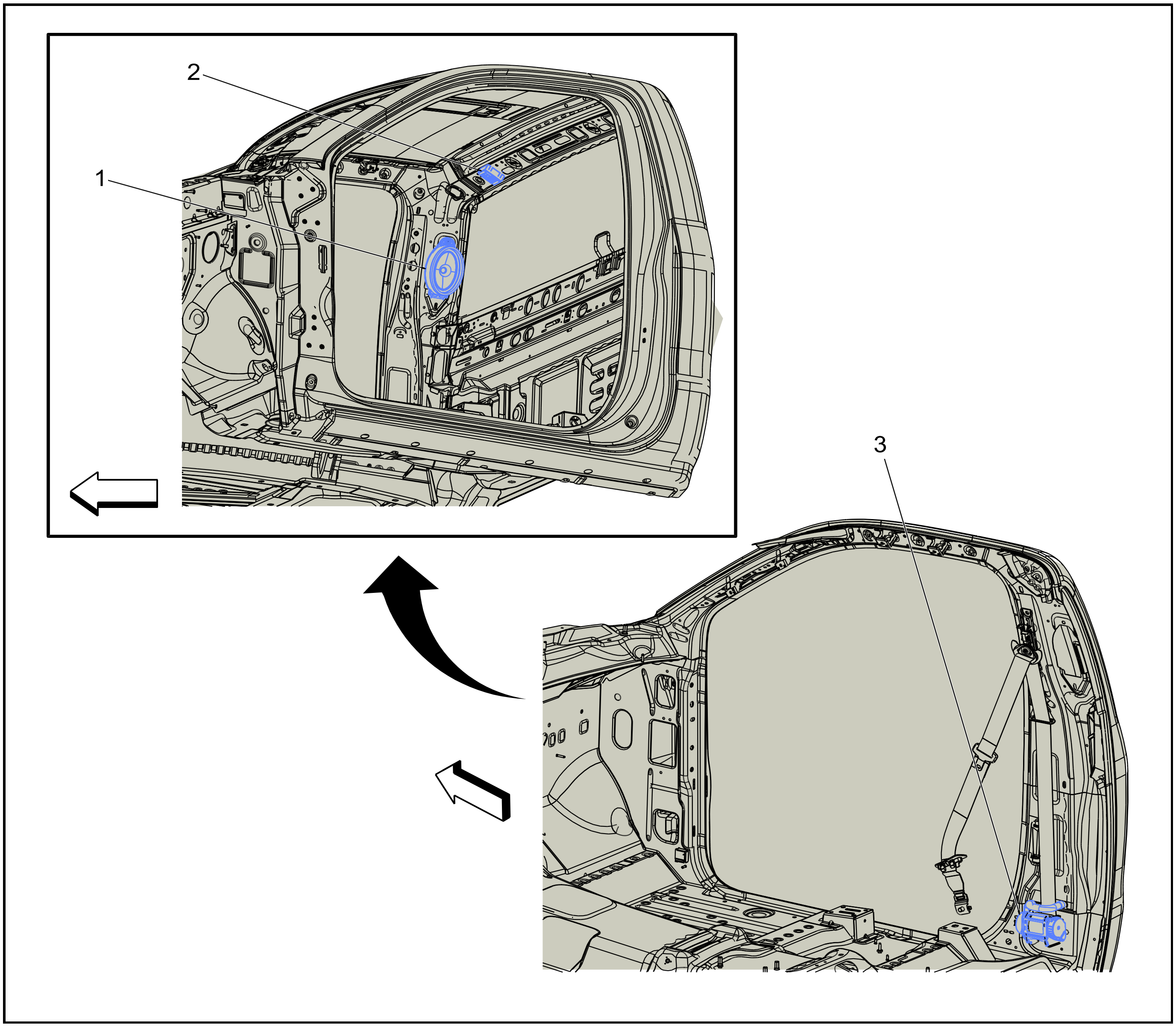


4992543

**Items**

| | |
|---|---|
| (1) | P19AN Speaker - Left Rear Trim Panel (Standard Cab) |
| (2) | K36 Inflatable Restraint Sensing and Diagnostic Module |
| (3) | F112D Seat Belt Retractor Pretensioner - Driver |

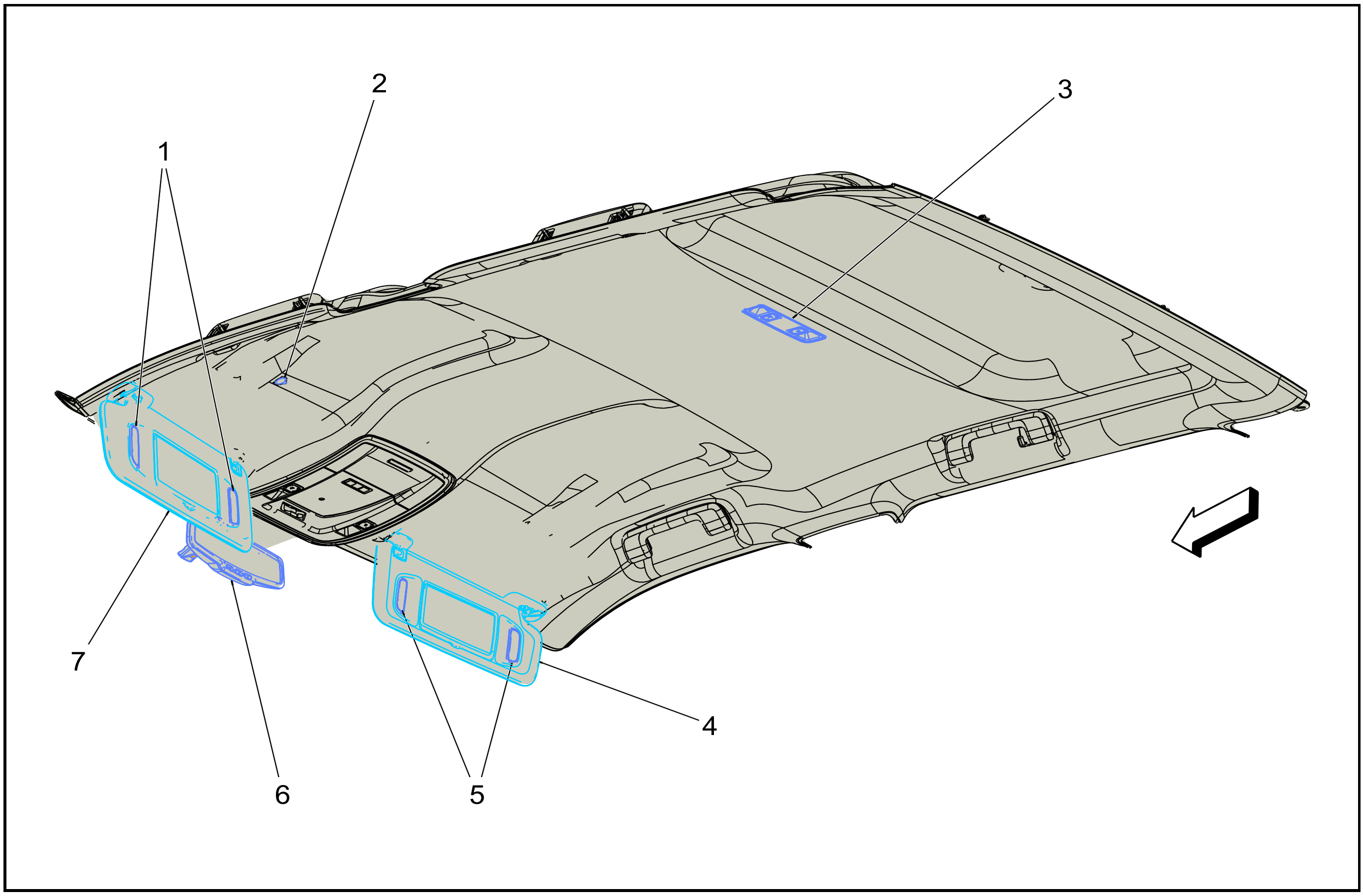
## Passenger Compartment Components - Right



**Items**

| | |
|---|---|
| (1) | P19AP Speaker - Right Rear Trim Panel (Standard Cab) |
| (2) | K77 Remote Control Door Lock Receiver |
| (3) | F112P Seat Belt Retractor Pretensioner - Passenger |

## Headliner Components



4975683

**Items**

(1) E31L Sunshade Mirror Lamp - Left (DH6)

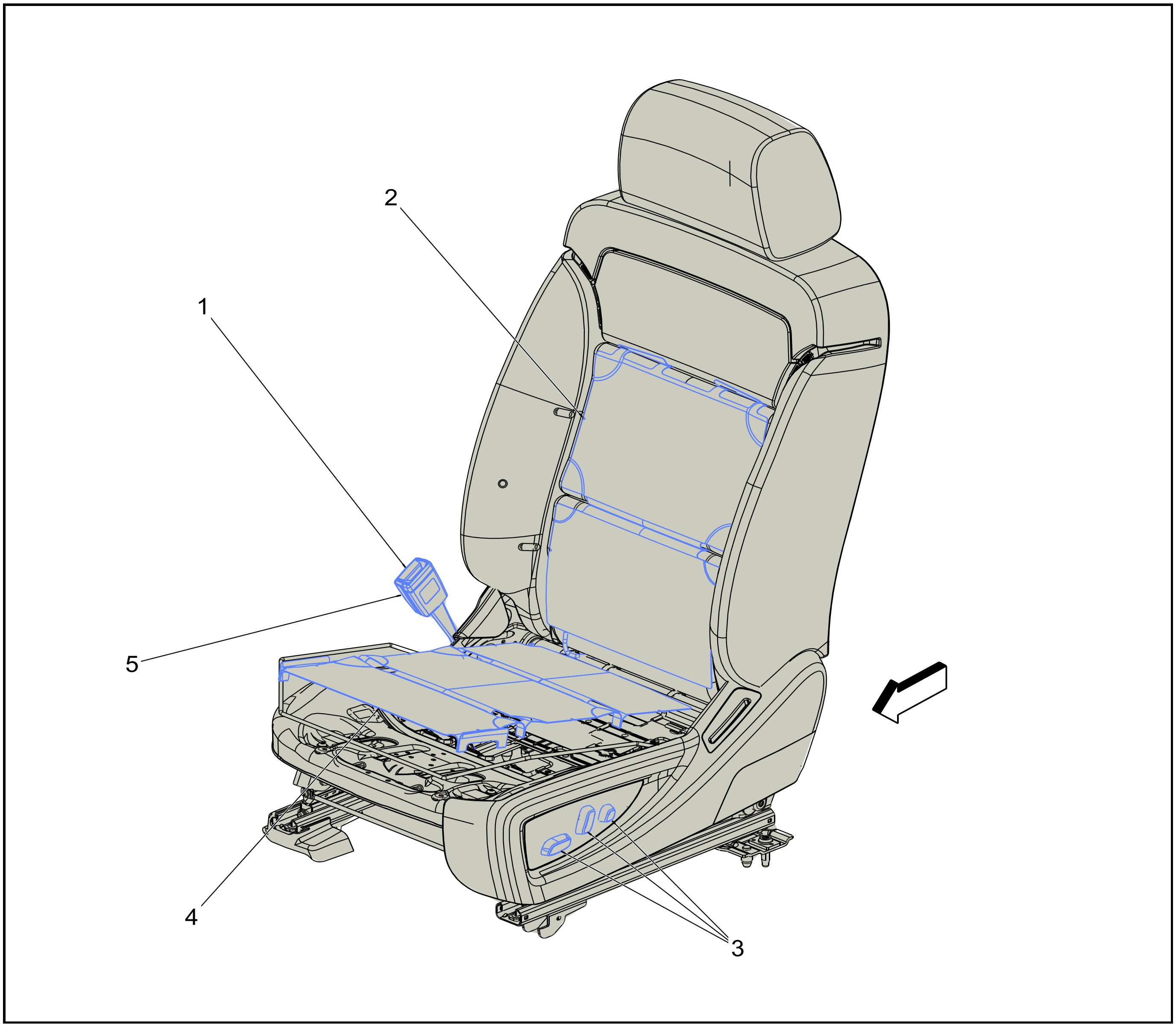
(2) B24 Mobile Telephone Microphone (IO5/IO6/IOB/UE1)

(3) E37B Dome/Reading Lamps - 2nd Row (Crew Cab-AZ3)

(4) E31R Sunshade Mirror Lamp - Right (DH6)

(5) A10 Inside Rearview Mirror (DD8/UE1)

## Front of Driver Seat Components

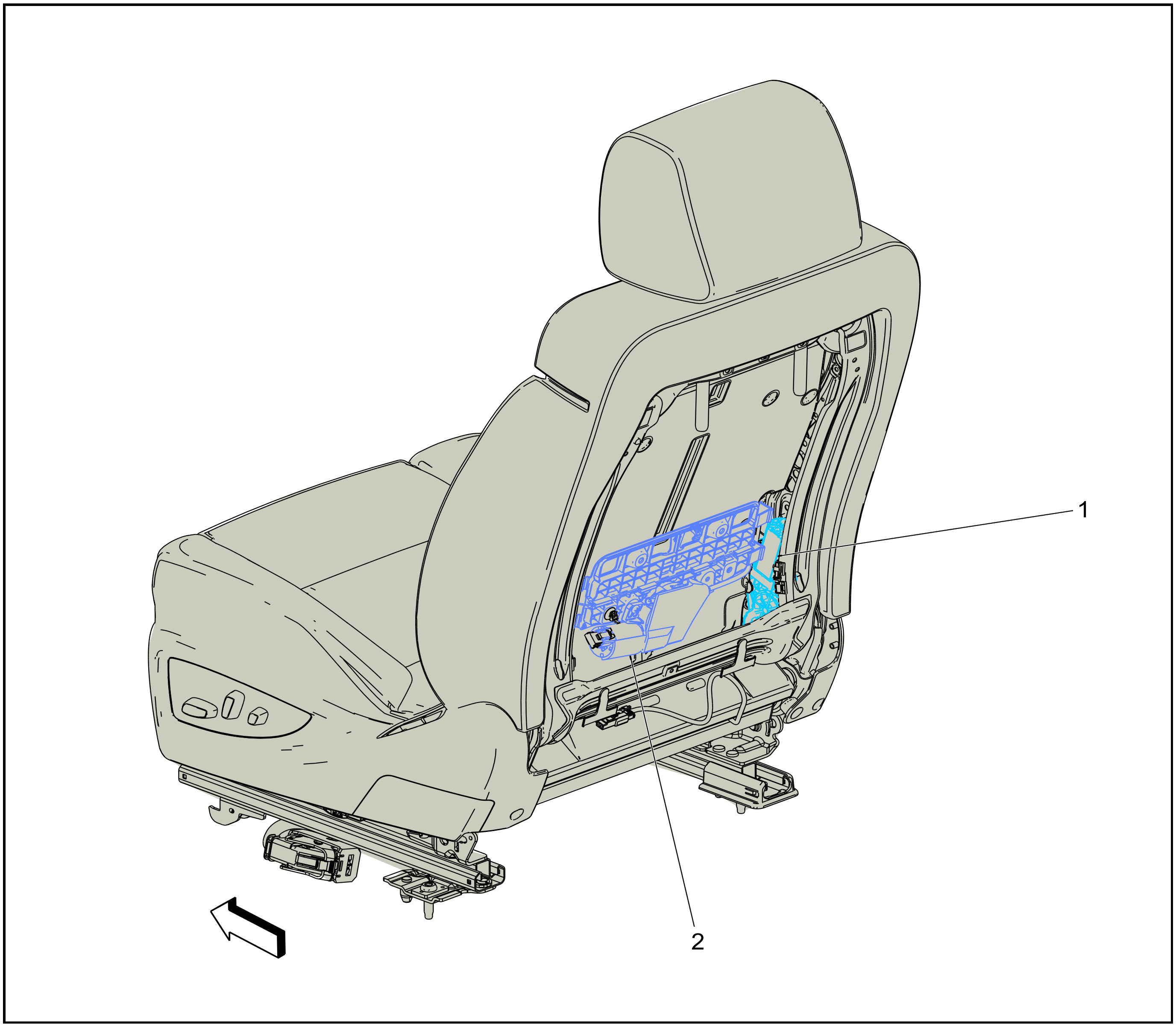


4975685

**Items**

| | |
|---|---|
| (1) | B88D Seat Belt Switch - Driver |
| (2) | E14A Seat Heating Element - Driver Back (KA1) |
| (3) | S64D Seat Adjuster Switch - Driver (A95/ AG1) |
| (4) | E14B Seat Heating Element - Driver Cushion (KA1) |
| (5) | B153D Seat Belt Buckle - Driver |

## Back of Driver Seat Components (A95/AG1)

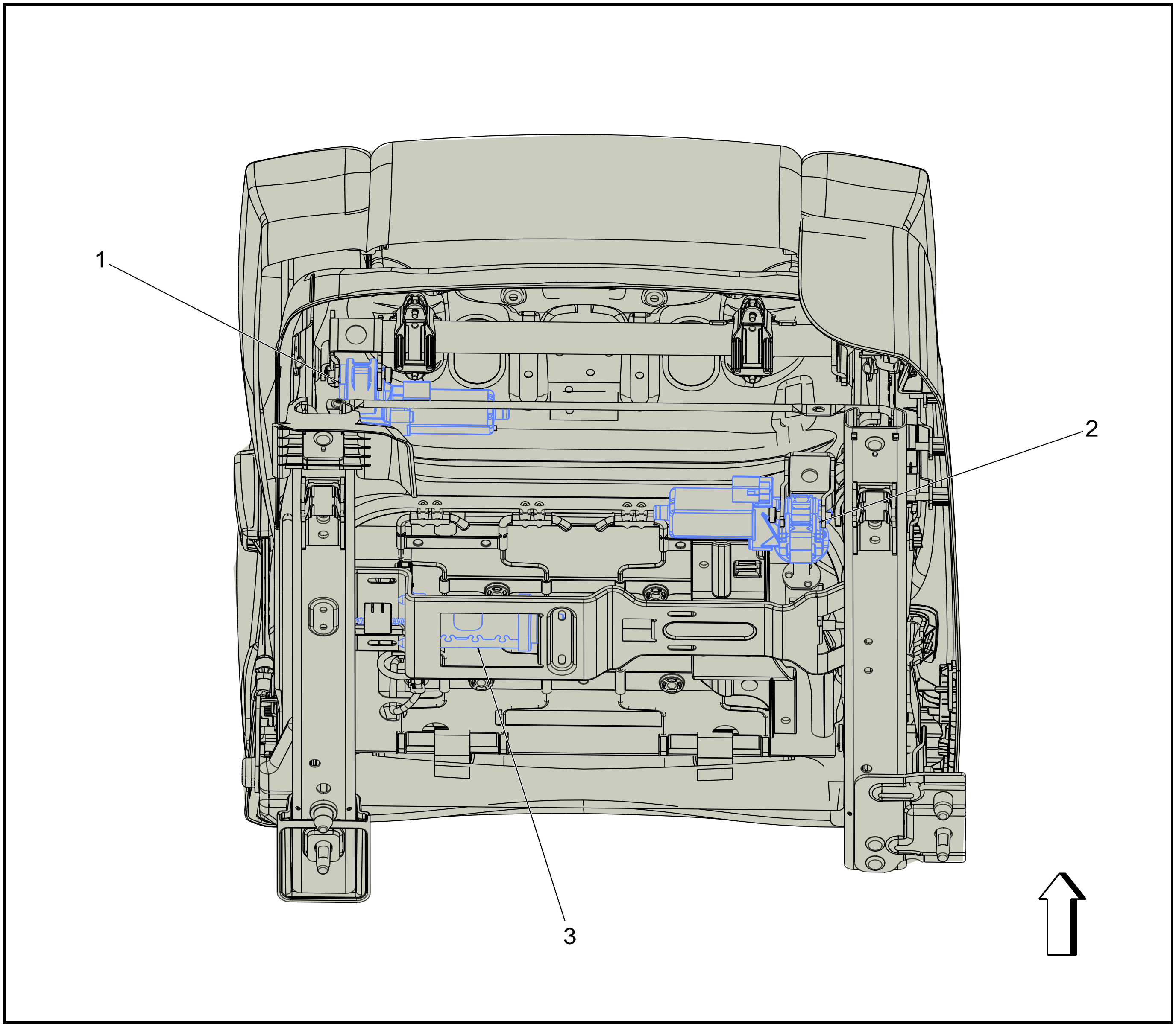


4975687

**Items**

| | |
|---|---|
| (1) | M56D Seat Recline Motor - Driver (A95/AG1) |
| (2) | M52D Seat Lumbar Support Horizontal Motor - Driver (A95) |

## Bottom of Driver Seat Components (A95/AG1)



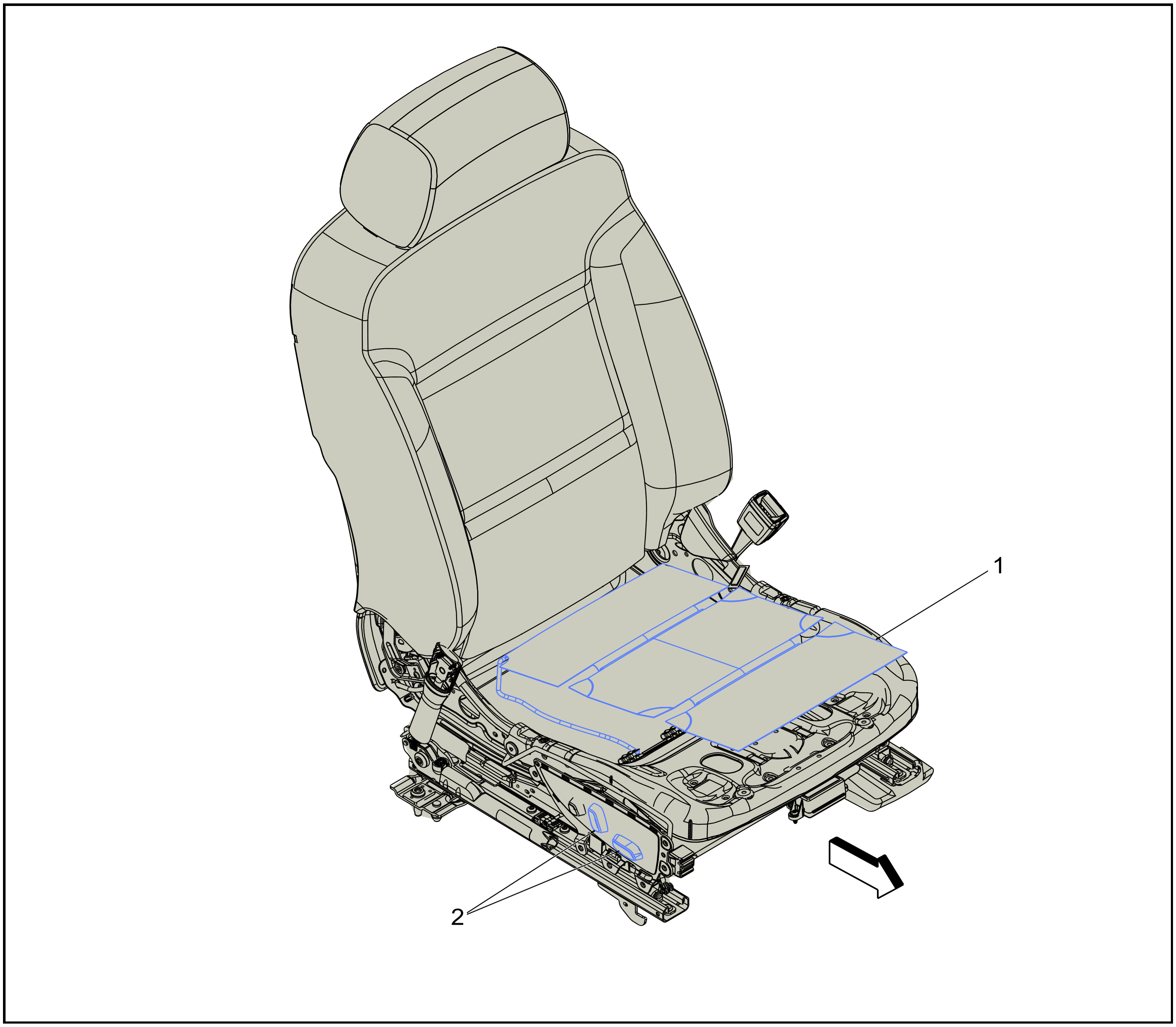
**Items**

(1) M50D Seat Front Vertical Motor - Driver (A95/AG1)

(2) M55D Seat Rear Vertical Motor - Driver (A95/AG1)

(3) M51D Seat Horizontal Motor - Driver (A95/AG1)

## Front of Passenger Seat Components



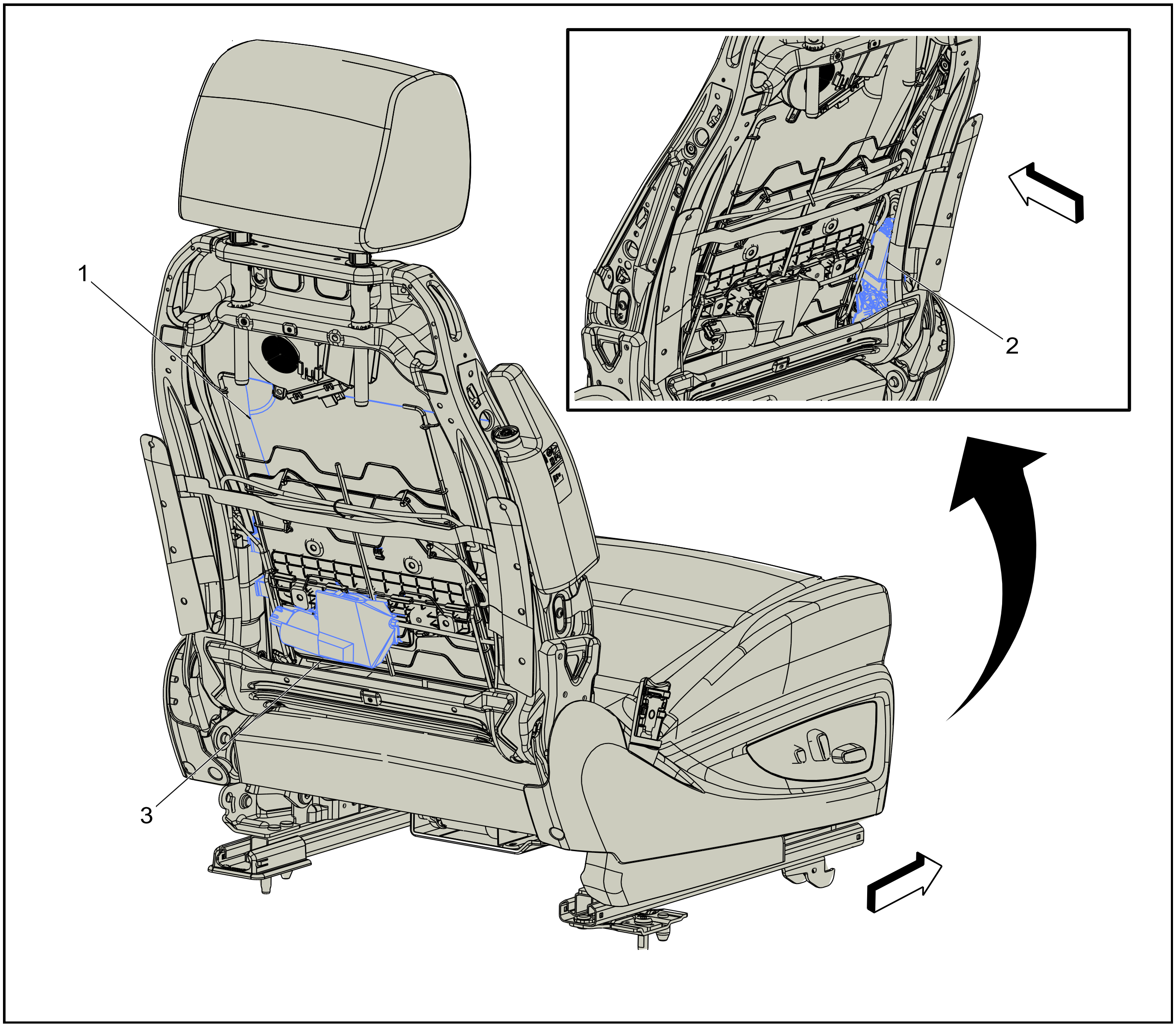
4975692

**Items**

(1) E14D Seat Heating Element - Passenger Cushion (KA1)

(2) S64P Seat Adjuster Switch - Passenger (A95/AG2)

## Back of Passenger Seat Components (A95/KA1)



4975696

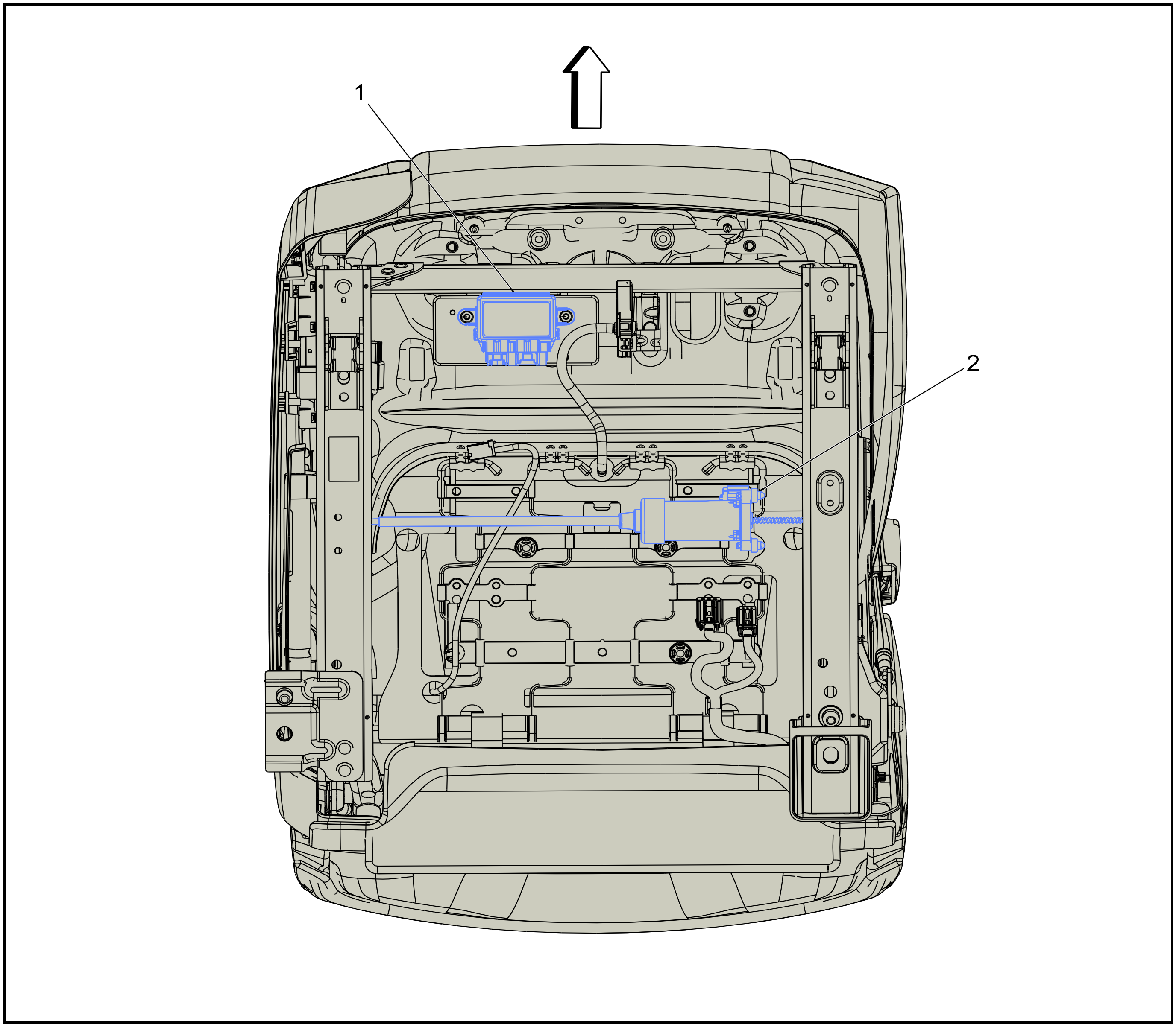
**Items**

(1) E14C Seat Heating Element - Passenger Back (KA1)

(2) M56P Seat Recline Motor - Passenger (A95/AG2)

(3) M52P Seat Lumbar Support Horizontal Motor - Passenger (A95)

## Bottom of Passenger Seat Components (A95/KA1)



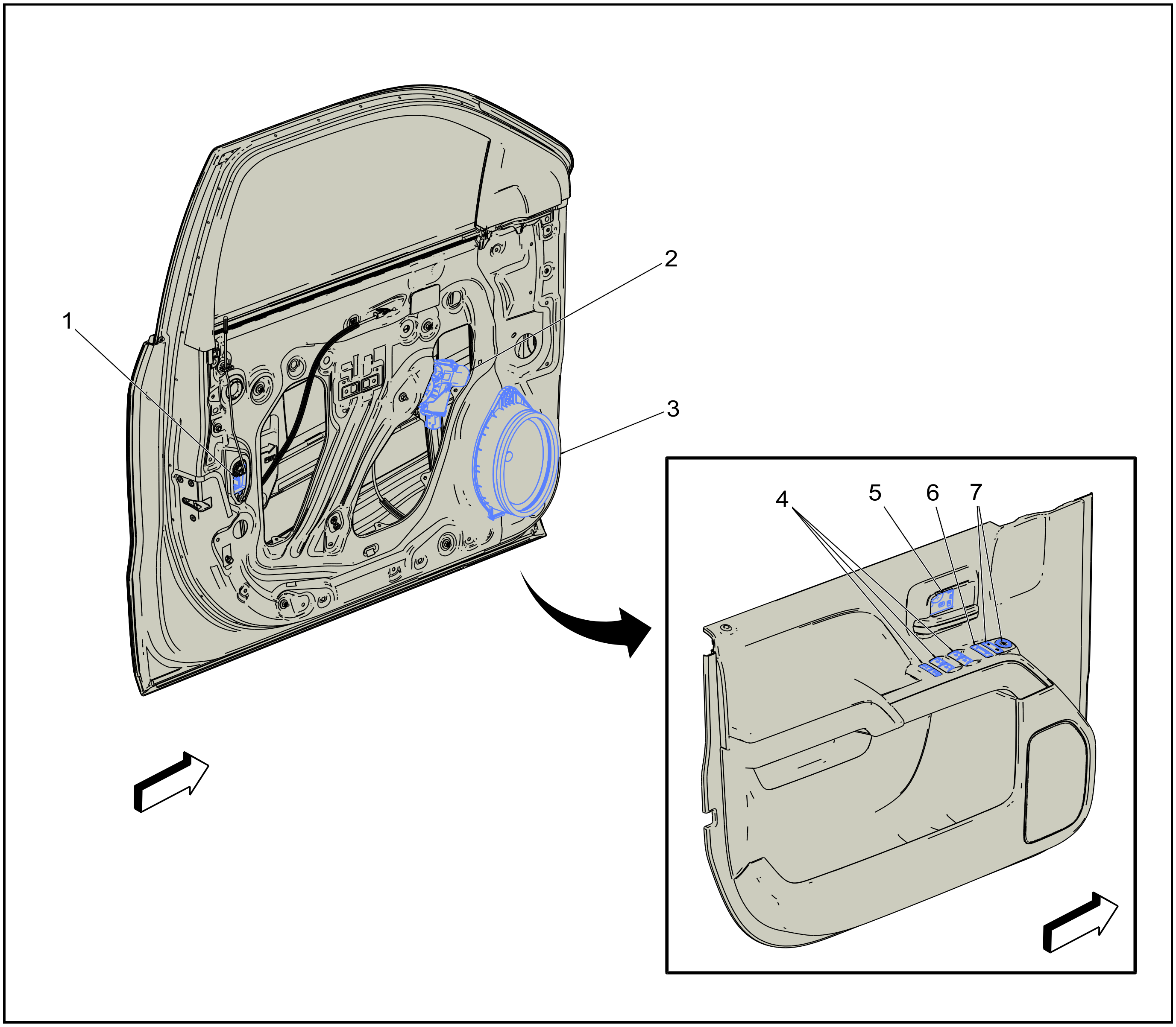
4975697

**Items**

| | |
|---|---|
| (1) | K29 Seat Heating Control Module (KA1) |
| (2) | M51P Seat Horizontal Motor - Passenger (A95/AG2) |

# Door Component Views

## Driver Door Components



4975699

**Items**

(1) A23D Door Latch Assembly - Driver

(2) M74D Window Motor - Driver

(3) P19AG Speaker - Left Front Door

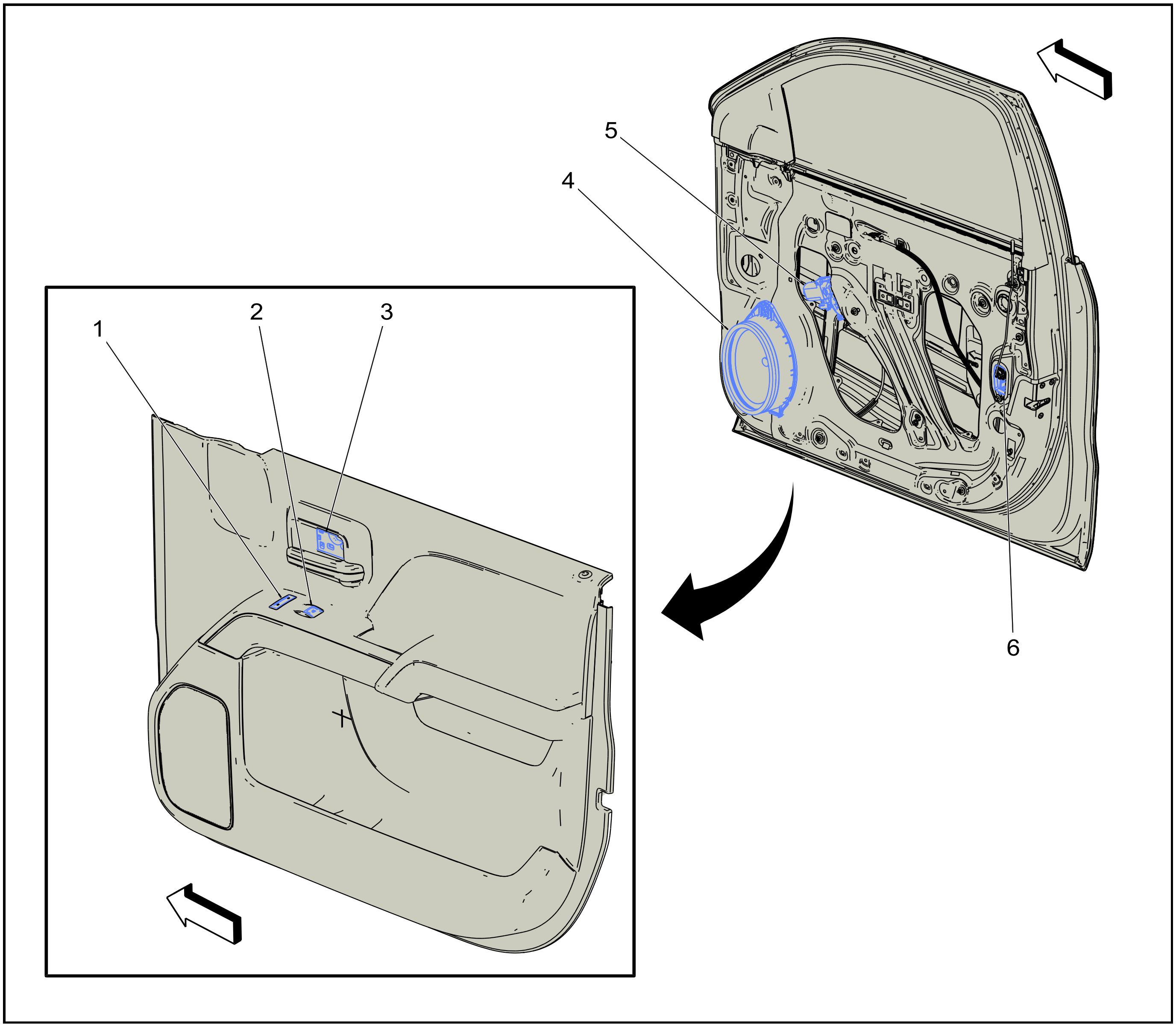
(4) S79D Window Switch - Driver

(5) E63D Flood Lamp - Driver Door Handle (A31)

(6) S13D Door Lock Switch - Driver

(7) S52 Outside Rearview Mirror Switch (DPN)

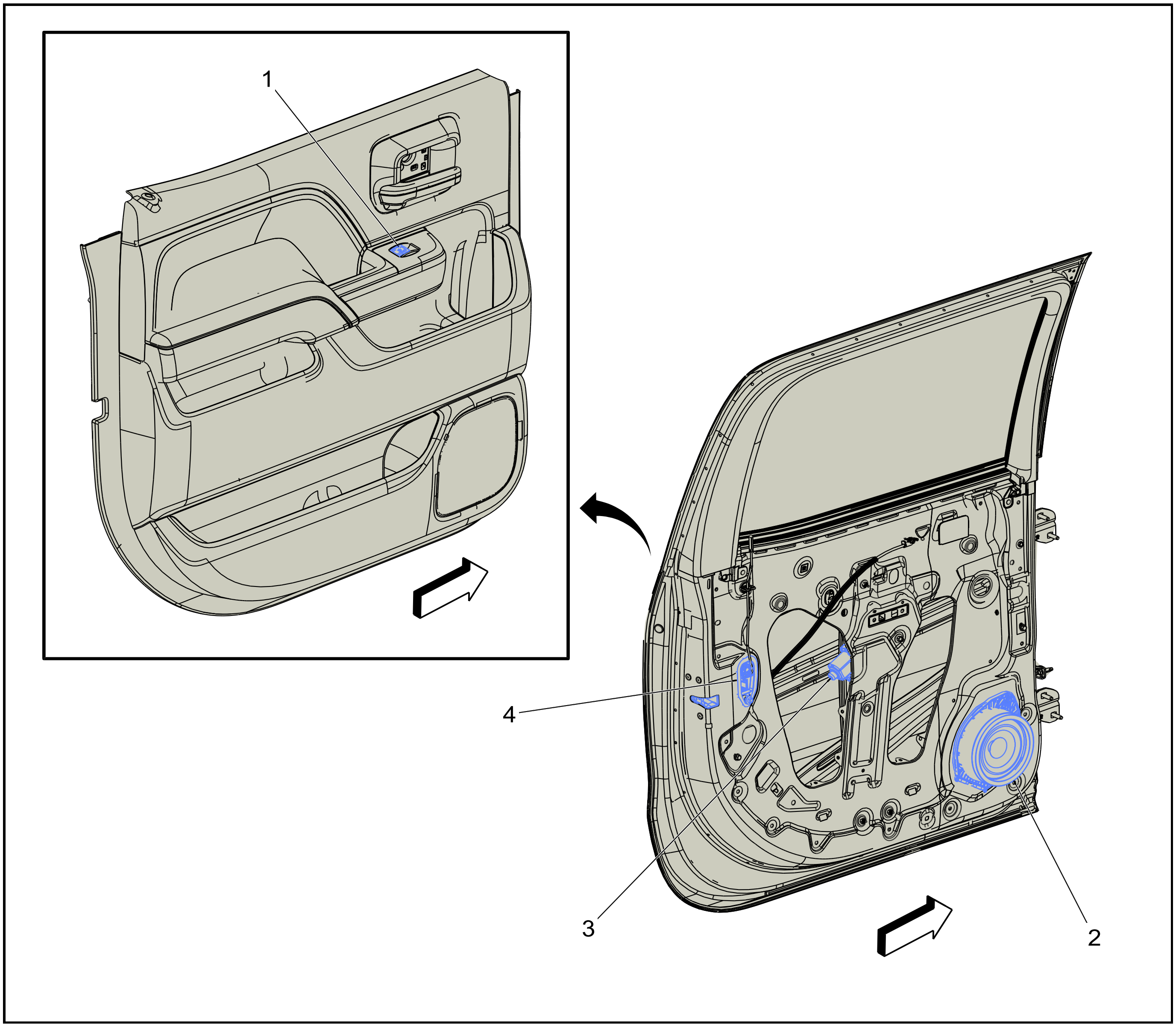
## Passenger Door Components



**Items**

| | |
|---|---|
| (1) | S13P Door Lock Switch - Passenger |
| (2) | S79P Window Switch - Passenger |
| (3) | E63P Flood Lamp - Passenger Door Handle (A31) |
| (4) | P19AH Speaker - Right Front Door |
| (5) | M74P Window Motor - Passenger |
| (6) | A23P Door Latch Assembly - Passenger |

## Left Rear Door Components



4975701

**Items**

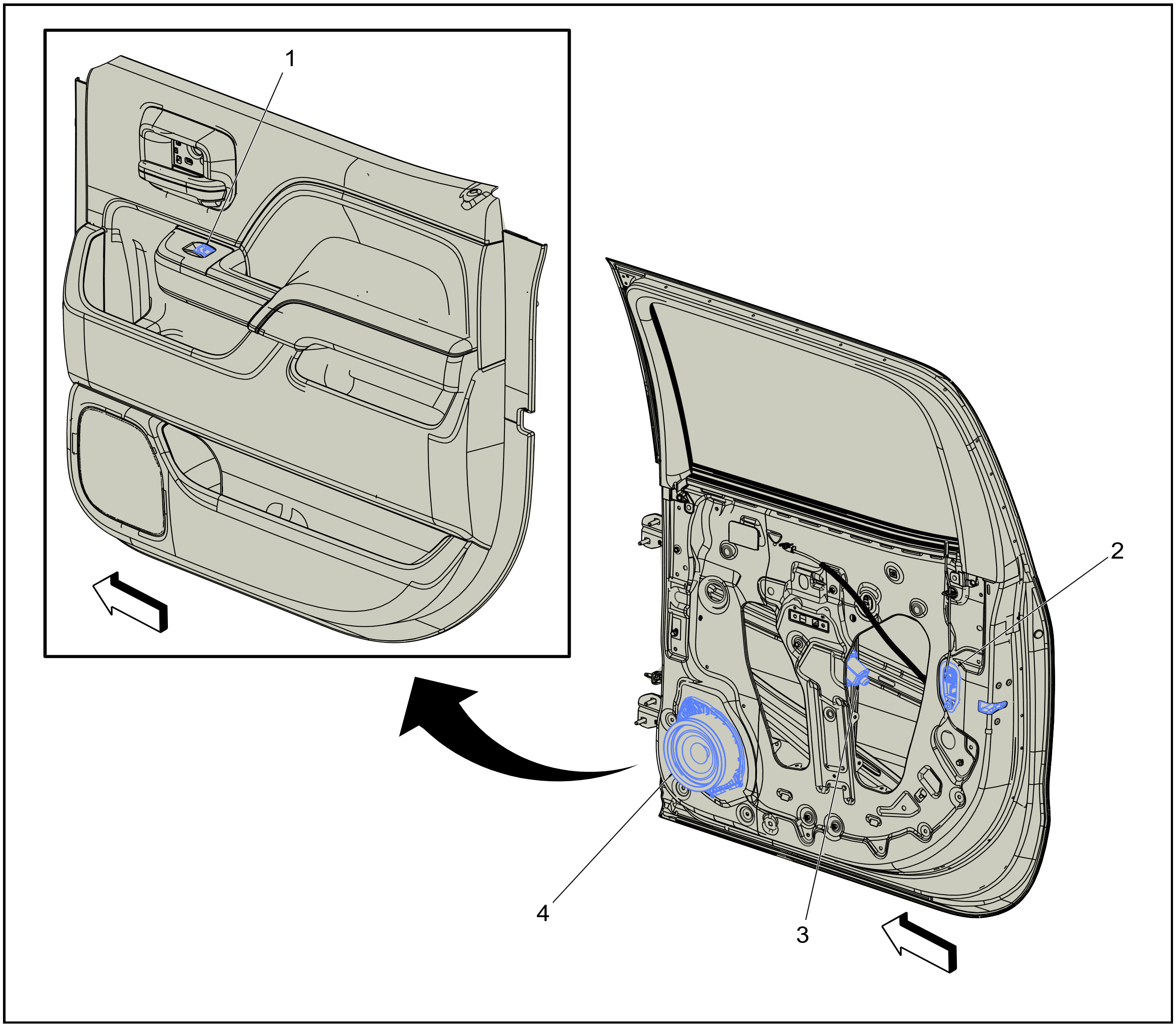
(1) S79LR Window Switch - Left Rear (Crew Cab)

(2) P19AL Speaker - Left Rear Door (Crew Cab)

(3) M74LR Window Motor - Left Rear (Crew Cab)

(4) A23LR Door Latch Assembly - Left Rear (Crew Cab)

## Right Rear Door Components



**Items**

(1) S79RR Window Switch - Right Rear (Crew Cab)

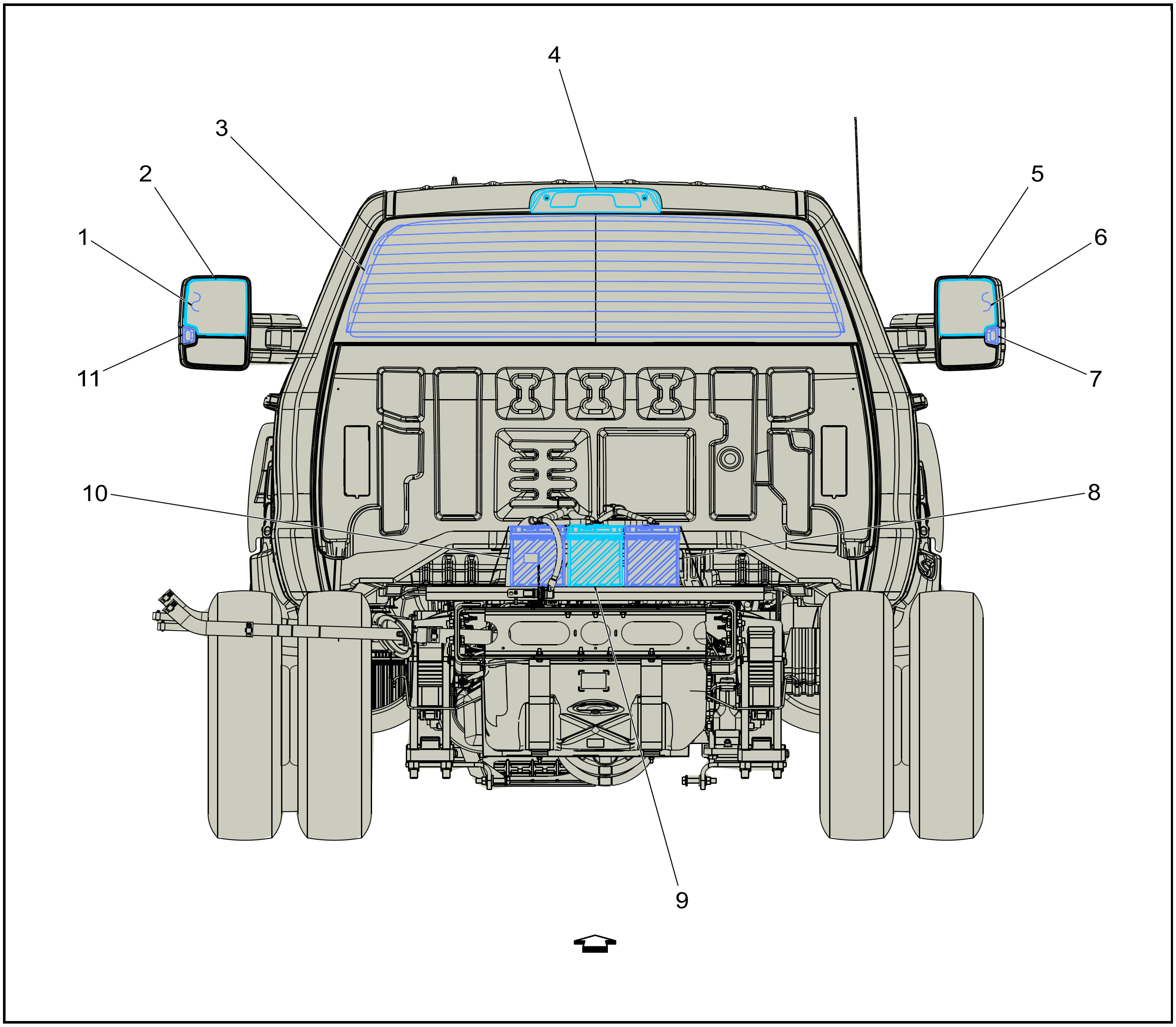
(2) A23RR Door Latch Assembly - Right Rear (Crew Cab)

(3) M74RR Window Motor - Right Rear (Crew Cab)

(4) P19AM Speaker - Right Rear Door (Crew Cab)

# Luggage Compartment/Rear of Vehicle Component Views

## Rear of Vehicle Components



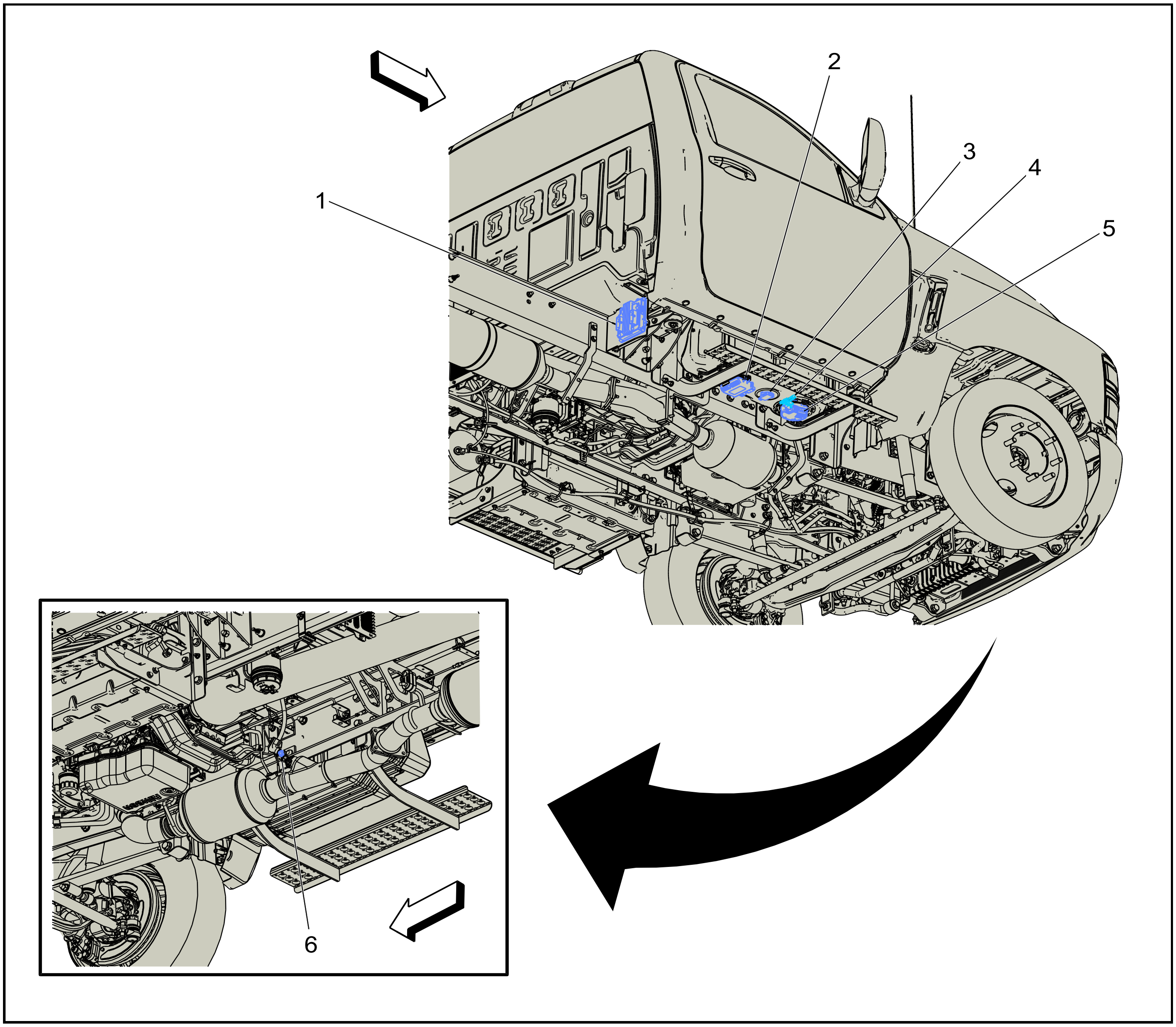
4976266

**Items**

| | |
|---|---|
| (1) | E4Y Turn Signal Repeater Lamp - Left (DPN) |
| (2) | E17D Outside Rearview Mirror Glass - Driver (DPN) |
| (3) | E18 Rear Defogger Grid (C49) |
| (4) | E6 Center High Mounted Stop Lamp |
| (5) | E17P Outside Rearview Mirror Glass - Passenger (DPN) |
| (6) | E4Z Turn Signal Repeater Lamp - Right (DPN) |
| (7) | E70P Outside Rearview Mirror Cargo Lamp - Passenger (DPN) |
| (8) | C1BB Battery - Auxiliary 2 (7Y9) |
| (9) | C1BA Battery - Auxiliary 1 |
| (10) | C1 Battery |
| (11) | E70D Outside Rearview Mirror Cargo Lamp - Driver (DPN) |

# Wheels/Vehicle Underbody Component Views

## Below Right Rear of Cab Components



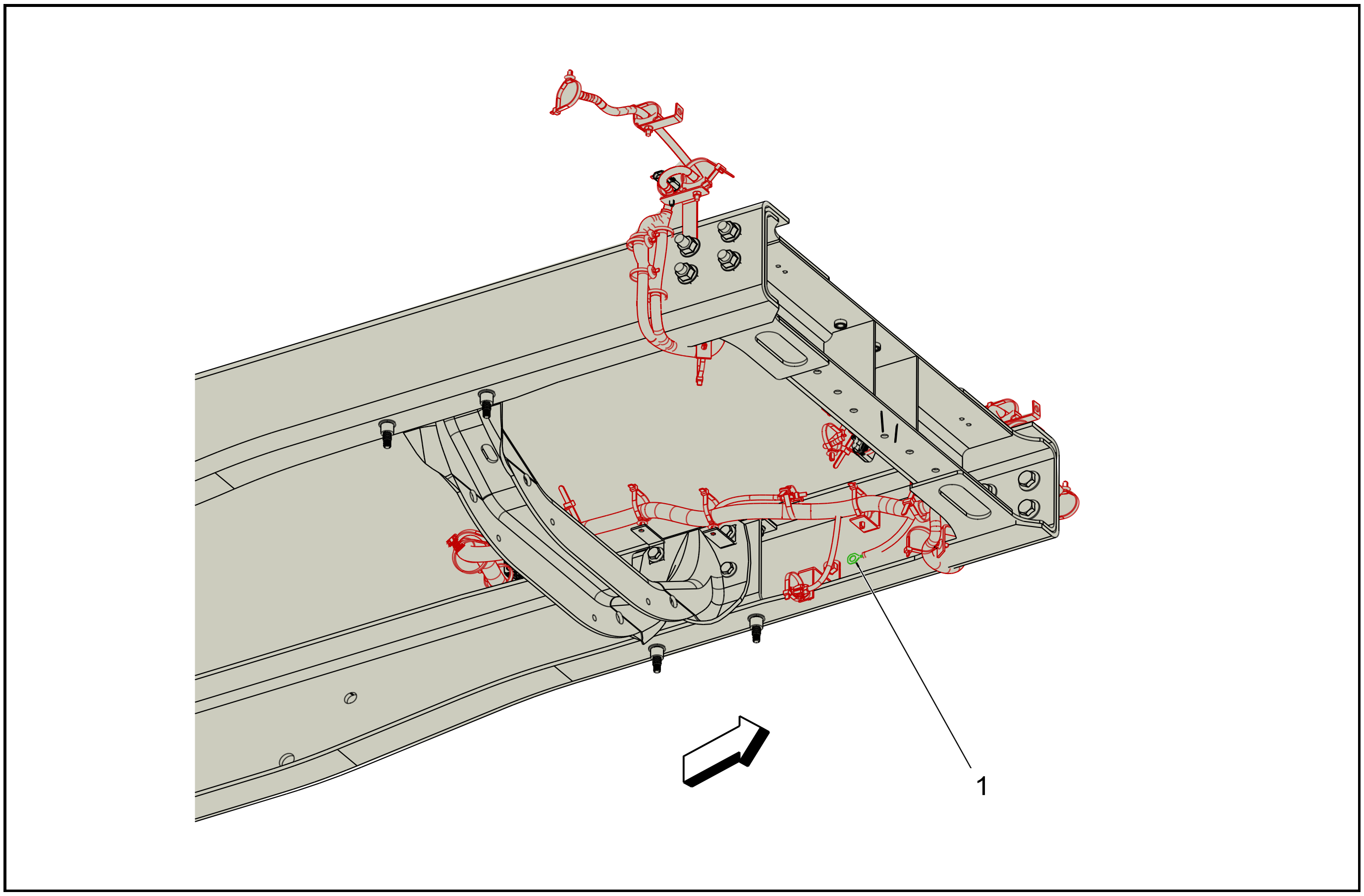
4975703

**Items**

| | |
|---|---|
| (1) | K44 Power Take-Off Control Module (PTO) |
| (2) | K115 Reductant Control Module |
| (3) | B295 Reductant Quality Sensor |
| (4) | E52 Reductant Line Heater |
| (5) | A38 Reductant Pump and Sensor Assembly |
| (6) | Q61 Reductant Injector |

# Ground Views

## G101

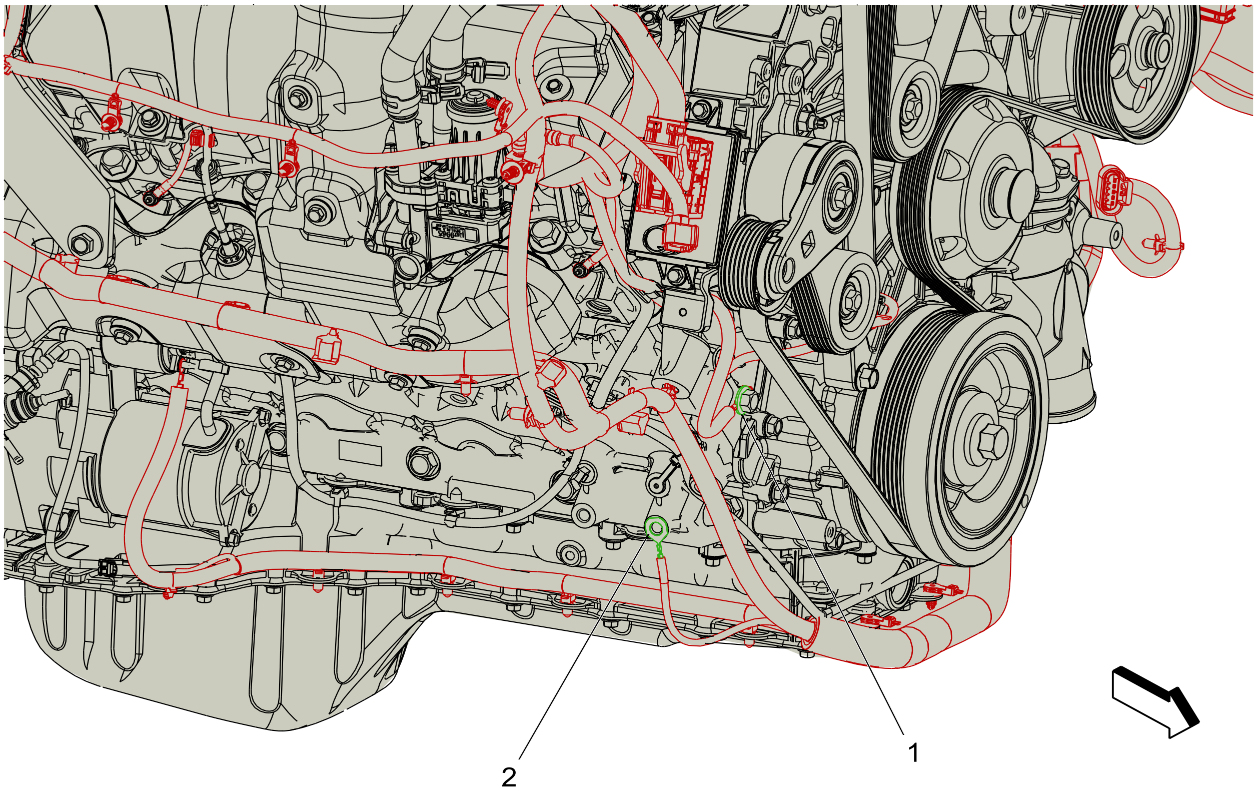


4992545

**Items**

| | |
|---|---|
| (1) | G101 Forward Lamp Harness |

## G110 and G112

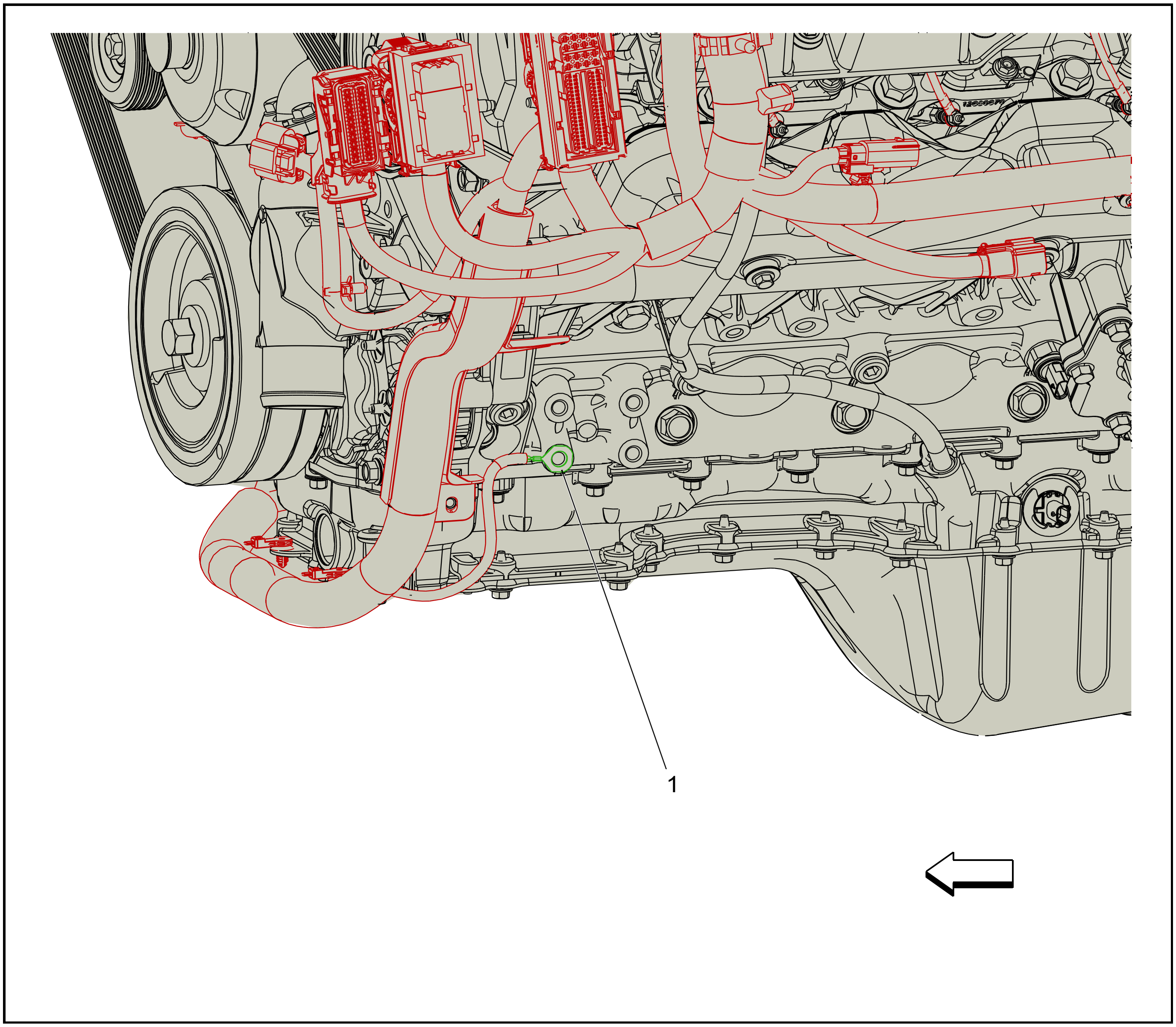


4975575

**Items**

| | |
|---|---|
| (1) | G112 Engine Harness |
| (2) | G110 Engine Chassis Harness |

## G120

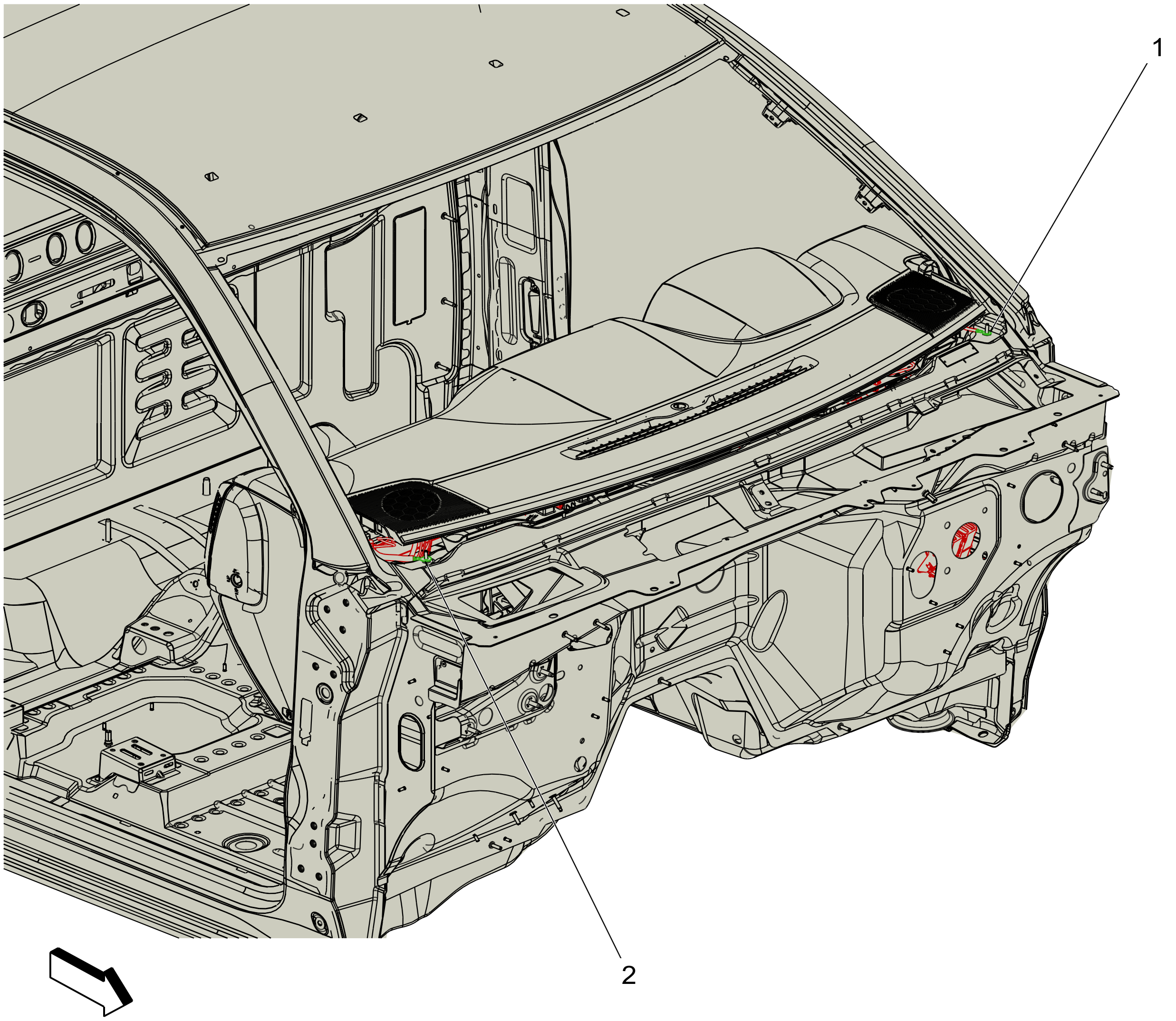


4975578

**Items**

| | |
|---|---|
| (1) | G120 Engine Chassis Harness |

## G210 and G218

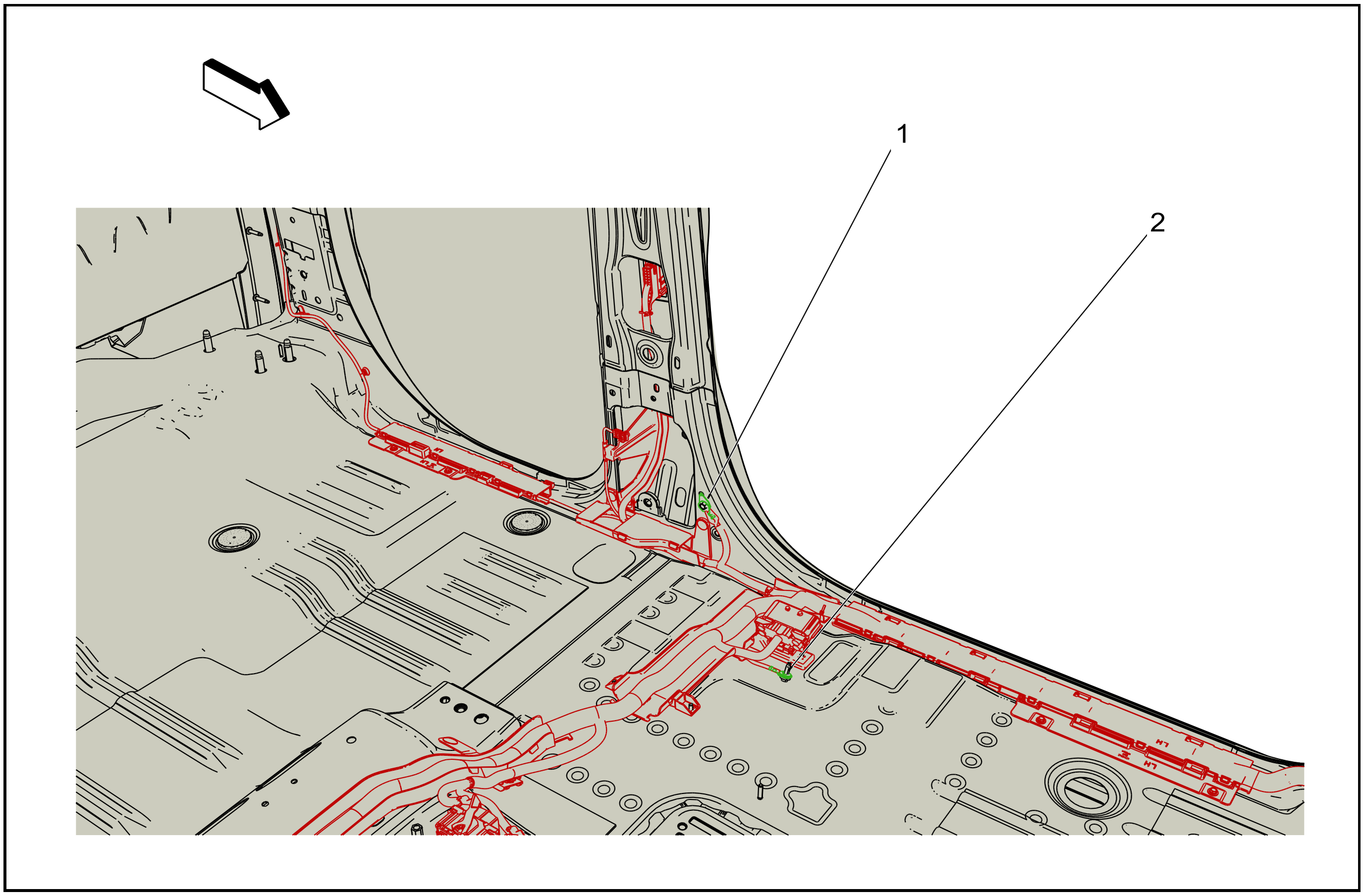


4975581

**Items**

| | |
|---|---|
| (1) | G218 Instrument Panel Harness |
| (2) | G210 Instrument Panel Harness |

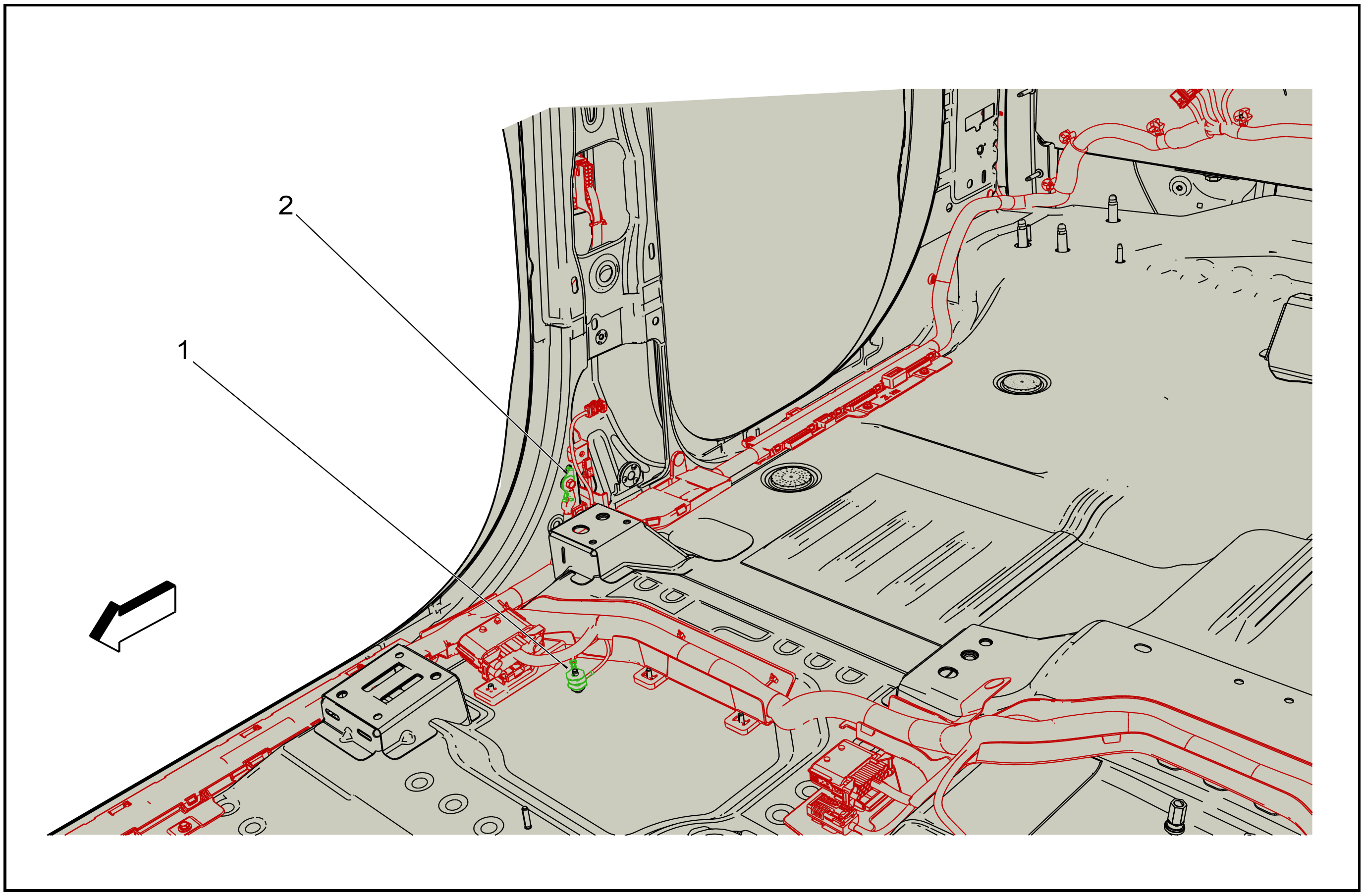
## G311 and G325



**Items**

| | |
|---|---|
| (1) | G311 Body Harness |
| (2) | G325 Body Harness |

## G312 and G327

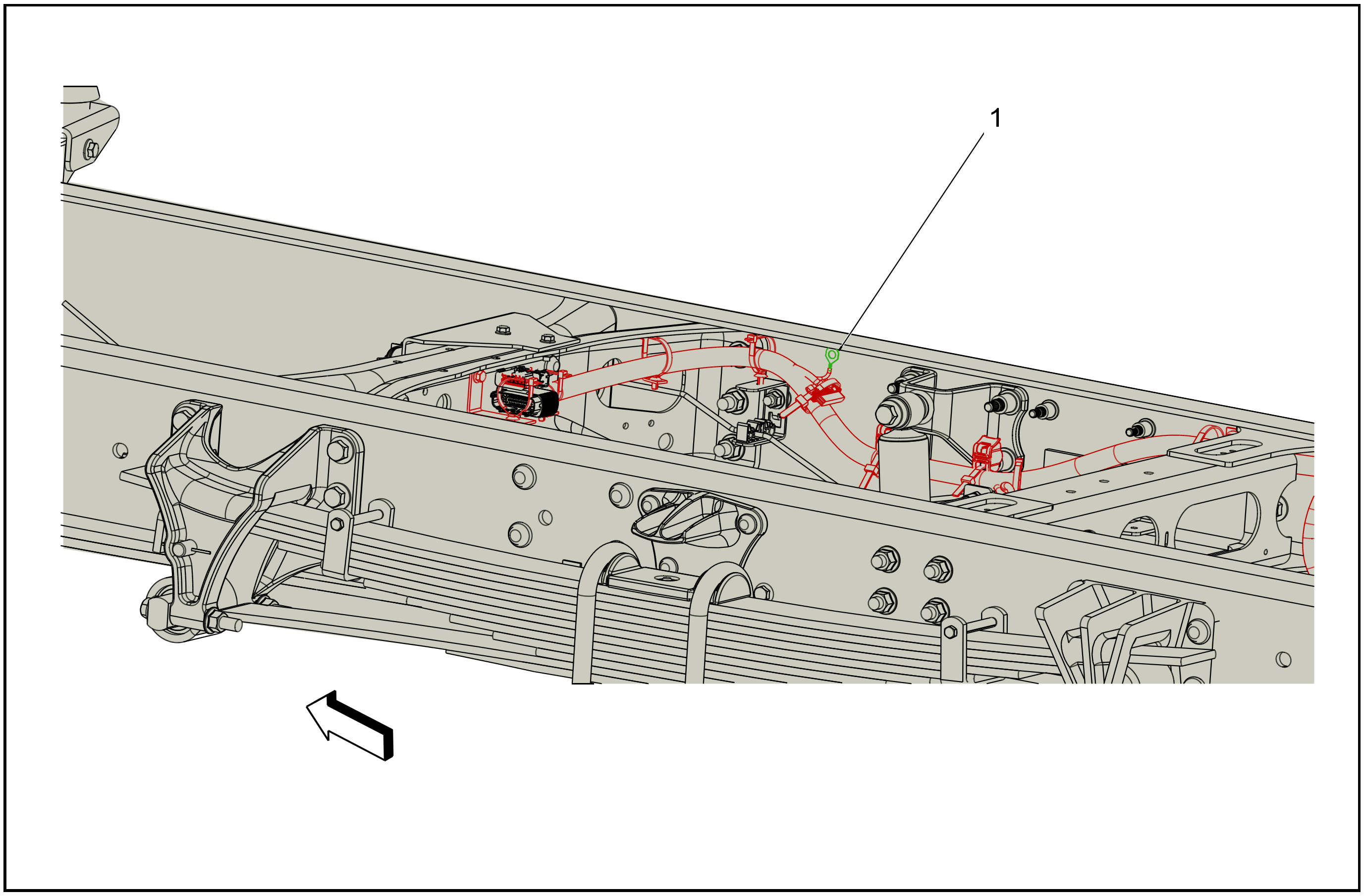


4975588

**Items**

| | |
|---|---|
| (1) | G327 Body Harness |
| (2) | G312 Body Harness |

## G402



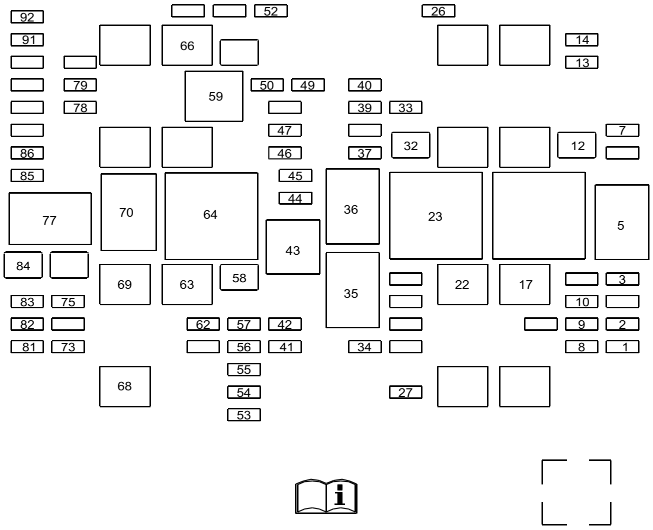
4975590

**Items**

| | |
|---|---|
| (1) | G402 Chassis Rear Right Harness |

# Electrical Center Identification Views

## X50A Fuse Block - Underhood Label


92
52
26
91
66
14
13
79
59
50
49
40
78
39
33
47
7
32
12
86
46
37
85
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44
36
77
70
64
23
5
43
84
58
3
69
63
22
17
35
83
75
10
82
62
57
42
9
2
81
73
56
41
34
8
1
55
68
54
27
53

FUSES

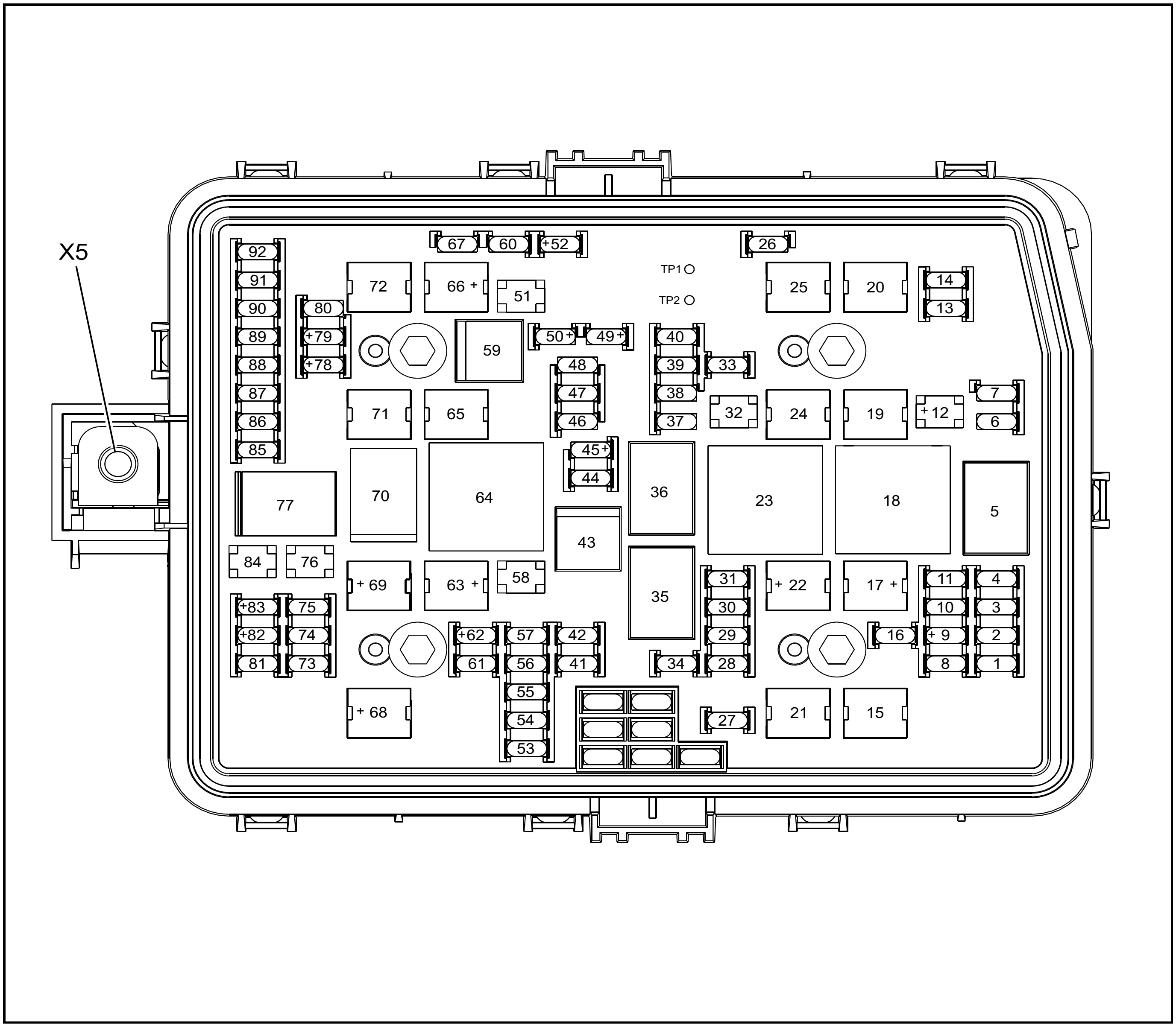
| | |
|---|---|
| 1 | HI BEAM LT (10A) |
| 2 | HI BEAM RT (10A) |
| 3 | WASH PUMP (15A) |
| 7 | UPPFITERS 3&4 (5A) |
| 8 | FOG LAMP (15A) |
| 9 | RVC (5A) |
| 10 | UPPFITERS 1&2 (5A) |
| 12 | 4WD TREC (30A) |
| 13 | LR_STP_TRN_LAMP (15A) |
| 14 | RR_STP_TRN_LAMP (15A) |
| 17 | IECL 1 (60A) |
| 22 | IECL 2 (60A) |
| 26 | RR AMBER (15A) |
| 27 | HORN (15A) |
| 32 | REAR DEFOG (30A) |
| 33 | HTD MIR (15A) |
| 34 | PRK LAMP LT (15A) |
| 37 | MSTRAIDS LAIR (5A) |
| 39 | AIR DRYER (20A) |
| 40 | MISC IGN (10A) |
| 41 | TRLR PRK LAMP (20A) |
| 42 | PRK LAMP RT (15A) |
| 44 | FUEL PUMP (20A) |
| 45 | LOW AIR PRESS (15A) |
| 46 | ECM IGN (15A) |
| 47 | TRANS IGN (15A) |
| 49 | TCM_BATT (15A) |
| 50 | A/C CLTCH (10A) |
| 52 | FRT WPR (25A) |
| 53 | STOP LAMP (15A) |
| 54 | TRLR REV LAMP (10A) |
| 55 | TRLR BCK/UP LAMP (10A) |
| 56 | AIR DUMP (10A) |
| 57 | LR AMBER (15A) |
| 58 | TRLR_BRK (30A) |
| 62 | ICCM (10A) |
| 63 | ACC PWR (20A) |
| 66 | AUX UEC (60A) |
| 68 | ABS PUMP (60A) |
| 69 | NOT USED |
| 73 | LFT_TRLR STOP_TURN (15A) |
| 75 | NOT USED |
| 78 | ECM_BATT (15A) |
| 79 | CAB_HTR_AUX BATT (10A) |
| 81 | RGT_TRLR STOP_TRN (15A) |
| 82 | FTZM (30A) |
| 83 | ABS VALVE (25A) |
| 84 | TRLR_BATT (30A) |
| 85 | ENG (15A) |
| 86 | ECM (30A) |
| 91 | ECM THROT CONT (15A) |
| 92 | COOL FAN CLUTCH (10A) |

RELAYS

| | |
|---|---|
| 5 | WASH PUMP |
| 23 | DEFOG REAR |
| 35 | PRK LAMP |
| 36 | RUN/CRNK |
| 43 | LOW AIR PRESS |
| 59 | A/C CONTROL |
| 64 | LR AMBER |
| 70 | NOT USED |
| 77 | ECM |

4894090

## X50A Fuse Block - Underhood Top View


X5
92
67
60
52
26
91
72
66
51
TP1
TP2
25
20
14
90
80
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89
79
59
50
49
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88
78
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33
87
71
65
47
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32
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12
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86
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3
82
74
62
57
42
29
16
9
2
81
73
61
56
41
34
28
8
1
55
68
27
21
15
54
53

4894093

## Usage Table

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| **Fuses** | | | | |
| 1 | HI BEAM LT | F1UA | 10A | • E4E Headlamp - Left High Beam |
| 2 | HI BEAM RT | F2UA | 10A | • E4F Headlamp - Right High Beam |
| 3 | WASH PUMP | F3UA | 15A | • G24 Windshield Washer Pump |
| 7 | UPPFITERS 3 and 4 | F7UA | 5A | • F6DR |
| 8 | FOG LAMP | F8UA | 15A | • E29LF Fog Lamp - Left Front (T3U)<br>• E29RF Fog Lamp - Right Front (T3U) |
| 9 | RVC | F9UA | 5A | • K9 Body Control Module |
| 10 | UPPFITERS 1 and 2 | F10UA | 5A | • F5DL |
| 12 | 4WD TREC | F12UA | 30A | • K69 Transfer Case Control Module (NQF) |

## Usage Table (cont'd)

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| 13 | LR_STP_TRN_LA-MP | F13UA | 15A | • E5S Tail/Stop and Turn Signal Lamp - Left<br>• X405 Chassis Harness to Body Builder Connection Harness (5DX)<br>• X495 Body Builder Connection Harness to Chassis Rear Right Harness (5DY) |
| 14 | RR_STP_TRN_L-AMP | F14UA | 15A | • E5T Tail/Stop and Turn Signal Lamp - Right<br>• X405 Chassis Harness to Body Builder Connection Harness (5DX)<br>• X495 Body Builder Connection Harness to Chassis Rear Right Harness (5DY) |
| 17 | IECL 1 | F17UA | 60A | • X51L Fuse Block - Instrument Panel Left |
| 22 | IECL 2 | F22UA | 60A | • X51L Fuse Block - Instrument Panel Left |
| 26 | RR AMBER | F26UA | 15A | • X405 Chassis Harness to Body Builder Connection Harness (5DX)<br>• X495 Body Builder Connection Harness to Chassis Rear Right Harness (5DY) |
| 27 | HORN | F27UA | 15A | • P12 Horn |
| 32 | REAR DEFOG | F32UA | 30A | • E18 Rear Defogger Grid (C49) |
| 33 | HTD MIR | F33UA | 15A | • E17D Outside Rearview Mirror Glass - Driver (DPN)<br>• E17P Outside Rearview Mirror Glass - Passenger (DPN) |
| 34 | PRK LAMP LT | F34UA | 15A | • E2LM Side Marker Lamp - Left Middle (DPN)<br>• E3A Roof Clearance Lamp - Left Front Outer<br>• E3C Roof Clearance Lamp - Front Middle<br>• E3E Roof Clearance Lamp - Right Front Outer<br>• E4S Park/Turn Signal Lamp - Left Upper<br>• E4Q Park/Turn Signal Lamp - Left Lower<br>• E5S Tail/Stop and Turn Signal Lamp - Left<br>• X405 Chassis Harness to Body Builder Connection Harness (5DX)<br>• X495 Body Builder Connection Harness to Chassis Rear Right Harness (5DY) |
| 37 | MSTRAIDS LAIR | F37UA | 5A | • W31 Blunt Cut - Crank Inhibit Provisions |
| 39 | AIR DRYER | F39UA | 20A | • TBD1 AIR DRYER (JPY) |
| 40 | MISC IGN | F40UA | 10A | • S48A Multifunction Switch - Instrument Panel (G40/GP1/GP8)<br>• X191 Engine Chassis Harness to Engine Chassis Harness (PTO) |
| 41 | TRLR PRK LAMP | F41UA | 20A | • X88 Trailer Connector (UY7) |
| 42 | PRK LAMP RT | F42UA | 15A | • E2RM Side Marker Lamp - Right Middle (DPN)<br>• E4TPark/Turn Signal Lamp - Right Upper<br>• E4R Park/Turn Signal Lamp - Right Lower<br>• E5T Tail/Stop and Turn Signal Lamp - Right<br>• X405 Chassis Harness to Body Builder Connection Harness (5DX)<br>• X495 Body Builder Connection Harness to Chassis Rear Right Harness (5DY) |
| 44 | FUEL PUMP | F44UA | 20A | • KR23B Fuel Pump Relay - Secondary (NSQ) |
| 45 | LOW AIR PRESS | F45UA | 15A | • Not Used |
| 46 | ECM IGN | F46UA | 15A | • K20 Engine Control Module<br>• K38A Chassis Control Module - Auxiliary (JL1)<br>• K111 Fuel Pump Control Module |

## Usage Table (cont'd)

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| 47 | TRANS IGN | F47UA | 15A | • K34 Glow Plug Control Module<br>• K71 Transmission Control Module |
| 49 | TCM_BATT | F49UA | 15A | • K71 Transmission Control Module |
| 50 | A/C CLTCH | F50UA | 10A | • KR29 A/C Compressor Clutch Relay |
| 52 | FRT WPR | F52UA | 25A | • KR12B Windshield Wiper Relay<br>• KR12C Windshield Wiper Speed Control Relay |
| 53 | STOP LAMP | F53UA | 15A | • E6 Center High Mounted Stop Lamp<br>• X405 Chassis Harness to Body Builder Connection Harness (5DX)<br>• X495 Body Builder Connection Harness to Chassis Rear Right Harness (5DY) |
| 54 | TRLR REV LAMP | F54UA | 10A | • E5A Backup Lamp - Left<br>• E5B Backup Lamp - Right<br>• P3 Backup Alarm (UZF)<br>• X405 Chassis Harness to Body Builder Connection Harness (5DX)<br>• X495 Body Builder Connection Harness to Chassis Rear Right Harness (5DY) |
| 55 | TRLR BCK/UP LAMP | F55UA | 10A | • X88 Trailer Connector (UY7) |
| 56 | AIR DUMP | F56UA | 10A | • AIR PRESSURE RLEASE RELAY |
| 57 | LR AMBER | F57UA | 15A | • X405 Chassis Harness to Body Builder Connection Harness (5DX)<br>• X495 Body Builder Connection Harness to Chassis Rear Right Harness (5DY) |
| 58 | TRLR_BRK | F58UA | 30A | • K133 Trailer Brake Power Control Module (JL1)<br>• X61A Junction Block - Instrument Panel<br>• X405 Chassis Harness to Body Builder Connection Harness (5DX)<br>• X495 Body Builder Connection Harness to Chassis Rear Right Harness (5DY) |
| 62 | ICCM | F62UA | 10A | • K38A Chassis Control Module - Auxiliary (JL1) |
| 63 | ACCY PWR | F63UA | 20A | • Not Used |
| 66 | AUX UEC | F66UA | 60A | • X50B Fuse Block - Underhood Auxiliary |
| 68 | ABS PUMP | F68UA | 60A | • K17 Electronic Brake Control Module |
| 69 | SPARE | F69UA | 30A | • Not Used |
| 73 | LFT_TRLR_STO-P_TURN | F73UA | 15A | • X88 Trailer Connector (UY7) |
| 75 | SPARE | F75UA | 30A | • Not Used |
| 78 | ECM_BATT | F78UA | 15A | • K20 Engine Control Module |
| 79 | CAB_HTR_AUX BATT | F79UA | 10A | • K115 Reductant Control Module |
| 81 | RGT_TRLR_STO-P_TURN | F81UA | 15A | • X88 Trailer Connector (UY7) |
| 82 | FTZM | F82UA | 30A | • K111 Fuel Pump Control Module |
| 83 | ABS VALVE | F83UA | 25A | • K17 Electronic Brake Control Module |
| 84 | TRLR_BATT | F84UA | 30A | • X88 Trailer Connector (UY7) |
| 85 | ENG | F85UA | 15A | • B75C Multifunction Intake Air Sensor |
| 86 | ECM | F86UA | 30A | • K20 Engine Control Module |

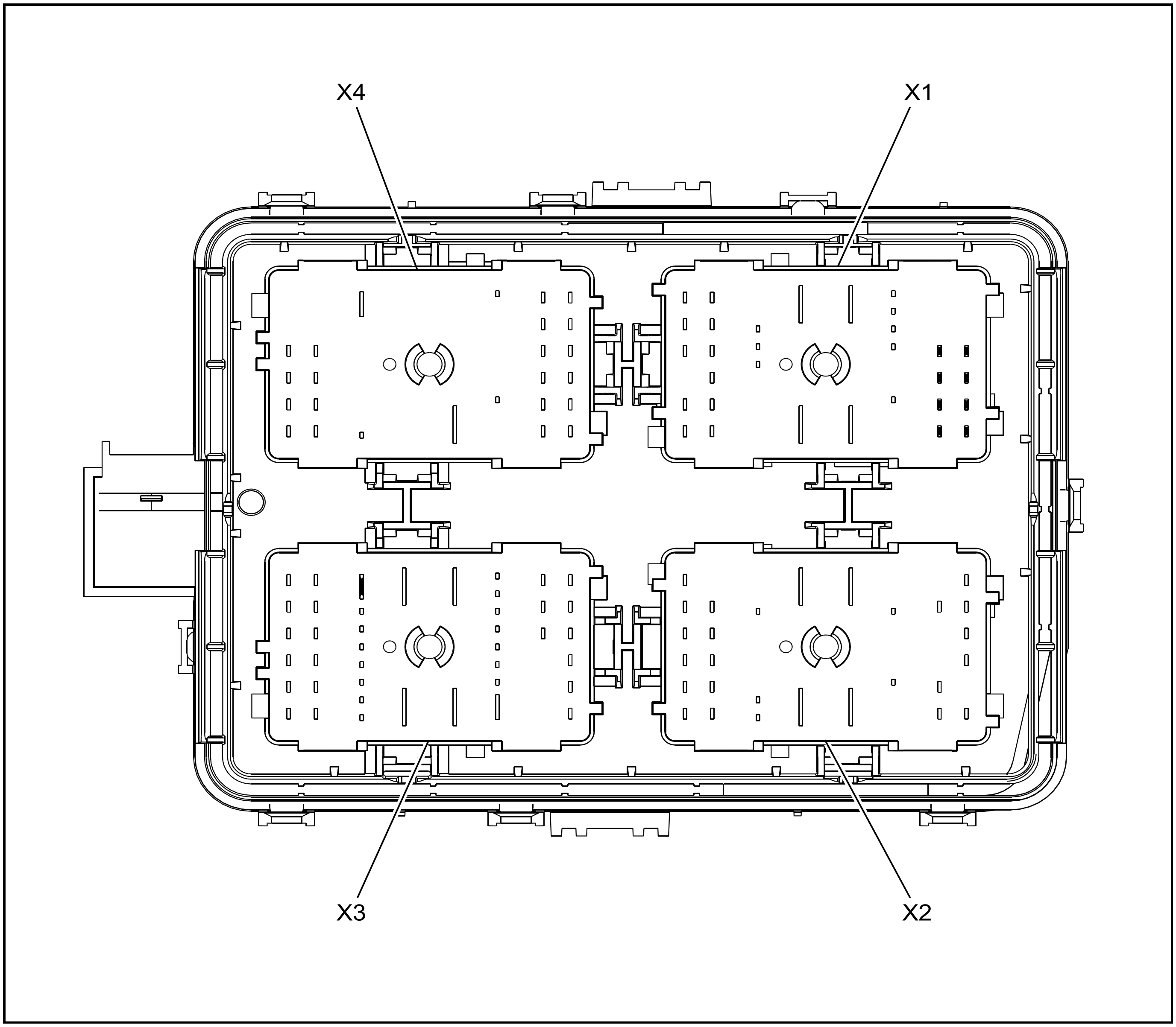
## Usage Table (cont'd)

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| 91 | ECM THROT CONT | F91UA | 15A | • K20 Engine Control Module |
| 92 | COOL FAN CLUTCH | F92UA | 10A | • KR20F Cooling Fan Relay |
| **Relays** | | | | |
| 5 | WASH PUMP | KR11 Windshield Washer Pump Relay | — | • F3UA |
| 23 | DEFOG REAR | KR5 Rear Defogger Relay | — | • F32UA<br>• F33UA |
| 35 | PRK LAMP | KR53 Park Lamps Relay | — | • F34UA<br>• F41UA<br>• F42UA |
| 36 | RUN/CRNK | KR73 Ignition Main Relay | — | • F7UA<br>• F10UA<br>• F37UA<br>• F39UA<br>• F40UA<br>• F44UA<br>• F46UA<br>• F47UA<br>• F56UA<br>• KR99 Air Suspension Relay |
| 43 | LOW AIR PRESS | KR99 Air Suspension Relay | — | • F45UA |
| 59 | A/C CONTROL | KR29 A/C Compressor Clutch Relay | — | • Q2 A/C Compressor Clutch (C67) |
| 64 | LR AMBER | KR68L Turn Signal Lamps Relay - Left | — | • F57UA |
| 70 | SPARE | — | — | • Not Used |
| 77 | ECM | KR75 Engine Controls Ignition Relay | — | • F85UA<br>• F86UA<br>• F91UA<br>• F92UA<br>• KR29 A/C Compressor Clutch Relay |
| **Note: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block.** | | | | |
| — | — | KR12B Windshield Wiper Relay | — | • KR12C Windshield Wiper Speed Control Relay |
| — | — | KR12C Windshield Wiper Speed Control Relay | — | • M75 Windshield Wiper Motor |
| — | — | KR3 Horn Relay | — | • F27UA |
| — | — | KR40 Backup Lamp Relay | — | • F54UA<br>• F55UA |
| — | — | KR46 Front Fog Lamp Relay | — | • F8UA |
| — | — | KR48 Headlamp High Beam Relay | — | • F1UA<br>• F2UA |
| — | — | KR59 Stop Lamp Relay | — | • F53UA |

## Usage Table (cont'd)

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| — | — | KR63L Trailer Stop/Turn Signal Lamp Relay - Left | — | • F73UA |
| — | — | KR63R Trailer Stop/Turn Signal Lamp Relay - Right | — | • F81UA |
| — | — | KR68R Turn Signal Lamps Relay - Right | — | • F26UA |
| — | — | AIR PRESSURE RELEASE RELAY | — | • TBD3 AIR SYSTEM CONTROL SOLENOID VALVE ASSEMBLY |
| — | — | KR182L Stop/Turn Signal Lamp Relay - Left | — | • F13UA |
| — | — | KR182R Stop/Turn Signal Lamp Relay - Right | — | • F14UA |
| **Test Points** | | | | |
| TP1 | CKT 95 | TP1 | — | • KR12C Windshield Wiper Speed Control Relay |
| TP2 | CKT 92 | TP2 | — | • KR12C Windshield Wiper Speed Control Relay |

## X50A Fuse Block - Underhood Bottom View



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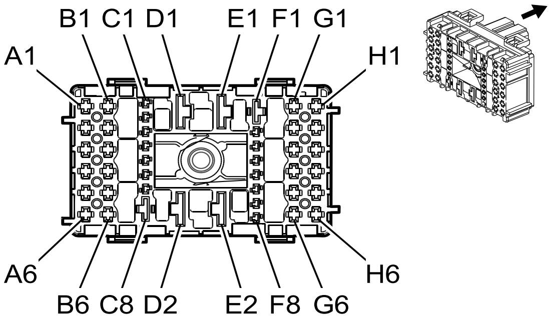
# X50A Fuse Block - Underhood X1



4994109

## Connector Part Information

Harness Type: Body
OEM Connector: 33384590
Service Connector: 19370824
Description: 44-Way F 1.5, 2.8, 6.3 CTS, 9.5 MCON-LL Series (BU)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19332365 | J-35616-14 (GN) | J-38125-560 | Not Required | Not Required | Not Required | Not Required |
| II | 19332366 | J-35616-35 (VT) | J-38125-12A | Not Required | Not Required | Not Required | Not Required |

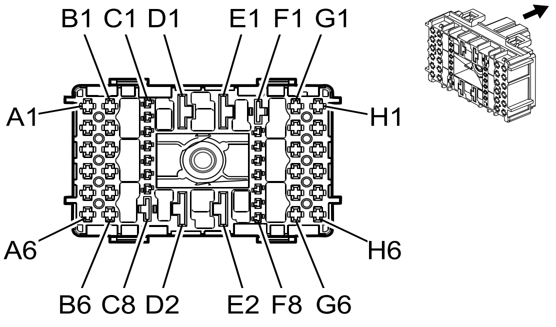
## X50A Fuse Block - Underhood X1

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A1 | 0.75 | D-BU/WH | 1314 | Left Front Turn Signal Lamp Control | II | — |
| A2 | 0.5 | VT/WH | 239 | Run/Crank Ignition 1 Voltage | II | — |
| A3 | 0.35 | BN/GY | 2268 | Windshield Washer Relay Control | II | — |
| A4 | 0.5 | BK | 550 | Ground | II | — |
| A5 | 0.75 | BK/WH | 451 | Signal Ground | II | — |
| A6 | 0.75 | BN/L-GN | 9950 | — | II | — |
| B1 | — | — | — | Not Occupied | — | — |
| B2 | 2 | RD/GY | 1342 | Battery Positive Voltage | II | — |
| B3 - B4 | — | — | — | Not Occupied | — | — |
| B5 | 0.75 | YE/D-BU | 18 | Left Rear Stop/Turn Lamp Control | II | — |
| B6 | 0.75 | BN/L-GN | 19 | Right Rear Stop/Turn Lamp Control | II | — |
| C1 | 0.75 | YE | 712 | Left Headlamp Low Beam Control | I | — |
| C2 | — | — | — | Not Occupied | — | — |
| C3 | 0.75 | YE | 312 | Right Headlamp Low Beam Control | I | — |
| C4 | — | — | — | Not Occupied | — | — |
| C5 | 0.75 | L-GN/VT | 1315 | Right Front Turn Signal Lamp Control | I | — |
| C6 | — | — | — | Not Occupied | — | — |
| C7 | 0.75 | YE/D-BU | 9960 | — | I | — |
| C8 - F1 | — | — | — | Not Occupied | — | — |

## X50A Fuse Block - Underhood X1 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| F2 | 0.35 | BN/VT | 193 | Rear Defog Relay Control | I | — |
| F3 | 0.35 | VT/L-GN | 1739 | Run/Crank Ignition 1 Voltage | I | — |
| F4 | 0.5 | D-BU/WH | 1314 | Left Front Turn Signal Lamp Control | I | — |
| F5 | — | — | — | Not Occupied | — | — |
| F6 | 0.35 | WH/VT | 860 | Front Windshield Wiper Switch High Signal | I | — |
| F7 | 0.75 | L-GN/VT | 619 | Right Rear Turn Signal Lamp Control | I | — |
| F8 | 0.5 | L-GN/VT | 1315 | Right Front Turn Signal Lamp Control | I | — |
| G1 | — | — | — | Not Occupied | — | — |
| G2 | 2.5 | BN/VT | 293 | Rear Defog Element Control | II | — |
| G3 | 0.5 | BN/YE | 2267 | Mirror Heating Element Control | II | — |
| G4 | 0.35 | L-GN/VT | 5199 | Run/Crank Relay Coil Control | II | — |
| G5 | 1 | BK | 550 | Ground | II | — |
| G6 | 0.35 | GY | 91 | Windshield Wiper Motor Relay Coil Control | II | — |
| H1 | 0.5 | VT/GY | 539 | Run/Crank Ignition 1 Voltage | II | — |
| H2 | 2.5 | RD/L-GN | 242 | Battery Positive Voltage | II | — |
| H3 | 1.5 | VT/GY | 139 | Run/Crank Ignition 1 Voltage | II | — |
| H4 | 0.5 | VT/WH | 239 | Run/Crank Ignition 1 Voltage | II | — |
| H5 | 1 | WH | 92 | Windshield Wiper Motor High Speed Control | II | — |
| H6 | 1 | YE/BN | 95 | Windshield Wiper Motor Low Speed Control | II | — |

# X50A Fuse Block - Underhood X2



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## Connector Part Information

Harness Type: Body
OEM Connector: 33384594
Service Connector: Service by Component Assembly - See Part Catalog
Description: 44-Way F 1.5, 2.8, 6.3 CTS, 9.5 MCON-LL Series (GN)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19332365 | J-35616-14 (GN) | J-38125-560 | Not Required | Not Required | Not Required | Not Required |
| II | 19332366 | J-35616-35 (VT) | J-38125-12A | Not Required | Not Required | Not Required | Not Required |
| III | Not Required | J-35616-22 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

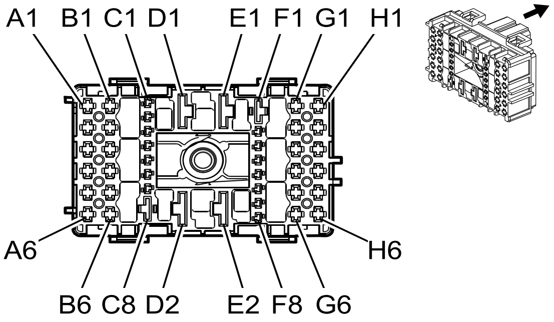
## X50A Fuse Block - Underhood X2

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A1 - A2 | — | — | — | Not Occupied | — | — |
| A3 | 0.5 | WH | 711 | Left Headlamp High Beam Control | II | — |
| A4 | 0.5 | WH | 311 | Right Headlamp High Beam Control | II | — |
| A5 | 0.5 | BK | 550 | Ground | II | — |
| A6 | 0.75 | GY/VT | 228 | Windshield Washer Pump Control | II | — |
| B1 - B2 | — | — | — | Not Occupied | — | — |
| B3 | 0.5 | BN/VT | 2234 | Front Fog Lamp Control | II | — |
| B4 | 0.5 | RD/YE | 2340 | Battery Positive Voltage | II | — |
| B5 | 0.5 | VT/L-GN | 39 | Run/Crank Ignition 1 Voltage | II | — |
| B6 | 0.75 | L-GN/VT | 1315 | Right Front Turn Signal Lamp Control | II | — |
| C1 | 0.35 | D-BU/WH | 5186 | Left Trailer Turn Signal Lamp Control | I | — |
| C2 | 0.35 | YE/GY | 5187 | Right Trailer Turn Signal Lamp Control | I | — |
| C3 | 0.5 | BN | 1317 | Fog Lamp Relay Control | I | — |
| C4 | 0.35 | BN/VT | 1969 | Headlamp High Beam Relay Control | I | — |
| C5 | 0.75 | D-BU/WH | 1314 | Left Front Turn Signal Lamp Control | I | — |
| C6 - D1 | — | — | — | Not Occupied | — | — |
| D2 | 10 | RD/VT | 842 | Battery Positive Voltage | III | — |

## X50A Fuse Block - Underhood X2 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| E1 | — | — | — | Not Occupied | — | — |
| E2 | 10 | RD/D-BU | 42 | Battery Positive Voltage | III | — |
| F1 | — | — | — | Not Occupied | — | — |
| F2 | 0.5 | VT/WH | 5065 | Stop Lamp Relay Coil Control | I | — |
| F3 | 0.35 | D-BU/BN | 38 | Backup Lamp Relay Control | I | — |
| F4 | 0.35 | BN/WH | 28 | Horn Relay Control | I | — |
| F5 | — | — | — | Not Occupied | — | — |
| F6 | 0.75 | YE | 312 | Right Headlamp Low Beam Control | I | — |
| F7 | — | — | — | Not Occupied | — | — |
| F8 | 0.75 | YE | 712 | Left Headlamp Low Beam Control | I | — |
| G1 | 0.75 | BN/GY | 29 | Horn Control | II | — |
| G2 | — | — | — | Not Occupied | — | — |
| G3 | 2 | RD/L-GN | 968 | — | II | — |
| G4 | 0.5 | YE | 5530 | Hood Open Switch Signal | II | — |
| G5 | 0.5 | YE | 5530 | Hood Open Switch Signal | II | — |
| G6 - H1 | — | — | — | Not Occupied | — | — |
| H2 | 0.5 | VT/GY | 709 | Left Park Lamp Control | II | — |
| H3 | 0.5 | VT/GY | 709 | Left Park Lamp Control | II | — |
| H4 | — | — | — | Not Occupied | — | — |
| H5 | 0.5 | GY/BN | 309 | Right Park Lamp Control | II | — |
| H6 | 0.35 | D-BU | 45 | Park Lamp Relay Control | II | — |

## X50A Fuse Block - Underhood X3



4992608

### Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 33384584
Service Connector: Service by Component Assembly - See Part Catalog
Description: 44-Way F 1.5, 2.8, 6.3 CTS, 9.5 MCON-LL Series (GY)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19332365 | J-35616-14 (GN) | J-38125-560 | Not Required | Not Required | Not Required | Not Required |
| II | 19332366 | J-35616-35 (VT) | J-38125-12A | Not Required | Not Required | Not Required | Not Required |
| III | Not Required | J-35616-22 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### X50A Fuse Block - Underhood X3

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A1 | 0.5 | VT/L-GN | 439 | Run/Crank Ignition 1 Voltage | II | — |
| A2 | 0.5<br>0.75 | VT/BK<br>L-GN | 2139<br>123 | Run/Crank Ignition 1 Voltage<br>Folding Top Relay Up Control | II<br>II | L5D<br>-L5D |
| A3 | 0.5 | VT/WH | 239 | Run/Crank Ignition 1 Voltage | II | — |
| A4 | — | — | — | Not Occupied | — | — |
| A5 | 0.75 | RD | 110 | Sunroof Switch Close Signal | II | — |
| A6 | 0.75 | BN/L-GN | 59 | A/C Compressor Clutch Control | II | — |
| B1 | — | — | — | Not Occupied | — | — |
| B2 | 1 | VT/GY | 539 | Run/Crank Ignition 1 Voltage | II | — |
| B3 - B4 | — | — | — | Not Occupied | — | — |
| B5 | 2.5 | BK | 550 | Ground | II | — |
| B6 | 0.75 | BK/WH | 451 | Signal Ground | II | — |
| C1 | 0.5 | L-GN/GY | 465 | Fuel Pump Primary Relay Control | I | — |
| C2 - C3 | — | — | — | Not Occupied | — | — |
| C4 | 0.5 | WH/GY | 459 | A/C Compressor Clutch Relay Control | I | — |
| C5 - D1 | — | — | — | Not Occupied | — | — |
| D2 | 10 | RD/WH | 342 | Battery Positive Voltage | III | — |

## X50A Fuse Block - Underhood X3 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| E1 - F2 | — | — | — | Not Occupied | — | — |
| F3 | 0.5 | RD/BN | 440 | Battery Positive Voltage | I | — |
| F4 | 0.5 | YE | 5991 | Powertrain Relay Coil Control | I | — |
| F5 | 0.75 | RD/WH | 3440 | Battery Positive Voltage | I | — |
| F6 | — | — | — | Not Occupied | — | — |
| F7 | 0.5 | GY/YE | 5297 | Camshaft Position Exhaust Sensor Control 1 | I | — |
| F8 | — | — | — | Not Occupied | — | — |
| G1 | 0.5 | VT/D-BU | 5294 | Powertrain Main Relay Fused Supply 5 | II | — |
| G2 - G6 | — | — | — | Not Occupied | — | — |
| H1 | 2.5 | VT/D-BU | 5290 | Powertrain Main Relay Fused Supply 1 | II | — |
| H2 - H5 | — | — | — | Not Occupied | — | — |
| H6 | 0.75 | VT/D-BU | 5290 | Powertrain Main Relay Fused Supply 1 | II | — |

# X50A Fuse Block - Underhood X4

—

## Connector Part Information

Harness Type: Chassis
OEM Connector: 4100427C1
Service Connector: Service by Component Assembly - See Part Catalog
Description: Wire Entry Fuse Block

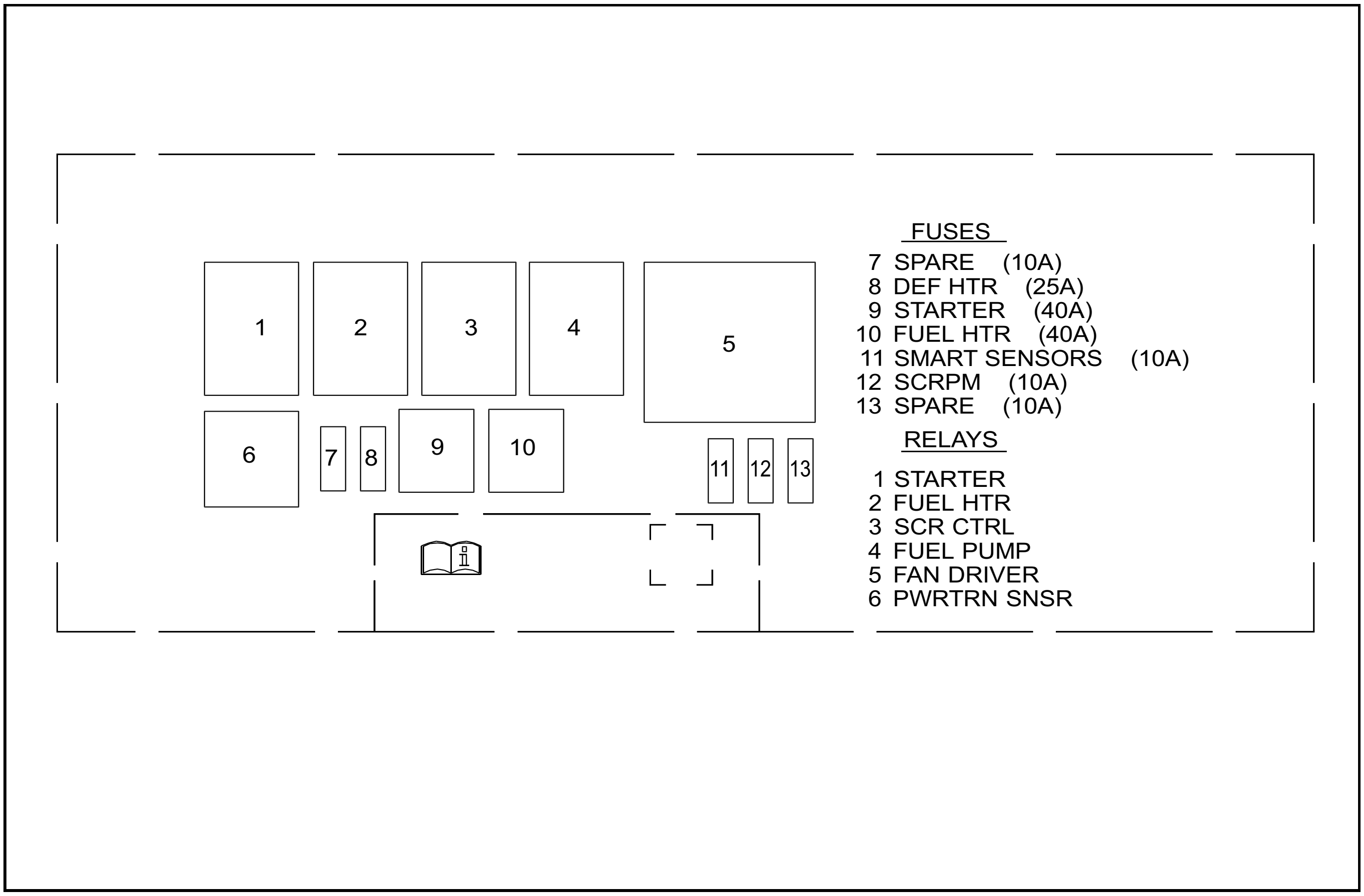
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### X50A Fuse Block - Underhood X4

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A1 | 0.75 | VT/GY | 1054 | Stop Lamp Control | I | — |
| A2 | 2 | VT/GY | 709 | Left Park Lamp Control | I | — |
| A3 | 5 | GY/BN | 2109 | Trailer Park Lamp Control | I | — |
| A4 | 2 | GY/BN | 309 | Right Park Lamp Control | I | — |
| A6 | 0.5 | PK | 1739 | Run/Crank Ignition 1 Voltage | I | — |
| B1 | 2 | GN/WH | 24 | Backup Lamp Control | I | — |
| B2 | 2 | WH/GN | 1624 | Trailer Backup Lamp Control | I | — |
| B4 | 2 | YE/BN | 618 | Left Rear Turn Signal Lamp Control | I | — |
| B5 | 1.5 | VT/GN | 439 | Run/Crank Ignition 1 Voltage | I | — |
| C1 | 0.75 | GY | 4461 | Soft Top Bootwell Sensor Signal Right | I | — |
| C2 | 0.75 | GY | 4462 | Soft Top Bootwell Sensor Signal Left | I | — |
| C7 | 1 | RD | 2040 | Battery Positive Voltage | I | — |
| E1 | 10 | RD/YE | 1042 | Battery Positive Voltage | I | — |
| F6 | 0.5 | GN/GY | 465 | Fuel Pump Primary Relay Control | I | — |
| G3 | 1.5 | YE/BU | 318 | Left Rear Trailer Stop/Turn Lamp Control | I | — |
| G6 | 2 | RD/GN | 1142 | Battery Positive Voltage | I | — |
| H3 | 2 | GN/BN | 319 | Right Rear Trailer Stop/Turn Lamp Control | I | — |
| H4 | 1.5 | RD/VT | 1242 | Battery Positive Voltage | I | — |
| H5 | 2 | RD/VT | 1940 | Battery Positive Voltage | I | — |
| H6 | 2 | RD/YE | 1242 | Battery Positive Voltage | I | — |

## X50B Fuse Block - Underhood Auxiliary Label


1
2
3
4
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6
7
8
9
10
11
12
13
FUSES
7 SPARE (10A)
8 DEF HTR (25A)
9 STARTER (40A)
10 FUEL HTR (40A)
11 SMART SENSORS (10A)
12 SCRPM (10A)
13 SPARE (10A)
RELAYS
1 STARTER
2 FUEL HTR
3 SCR CTRL
4 FUEL PUMP
5 FAN DRIVER
6 PWRTRN SNSR

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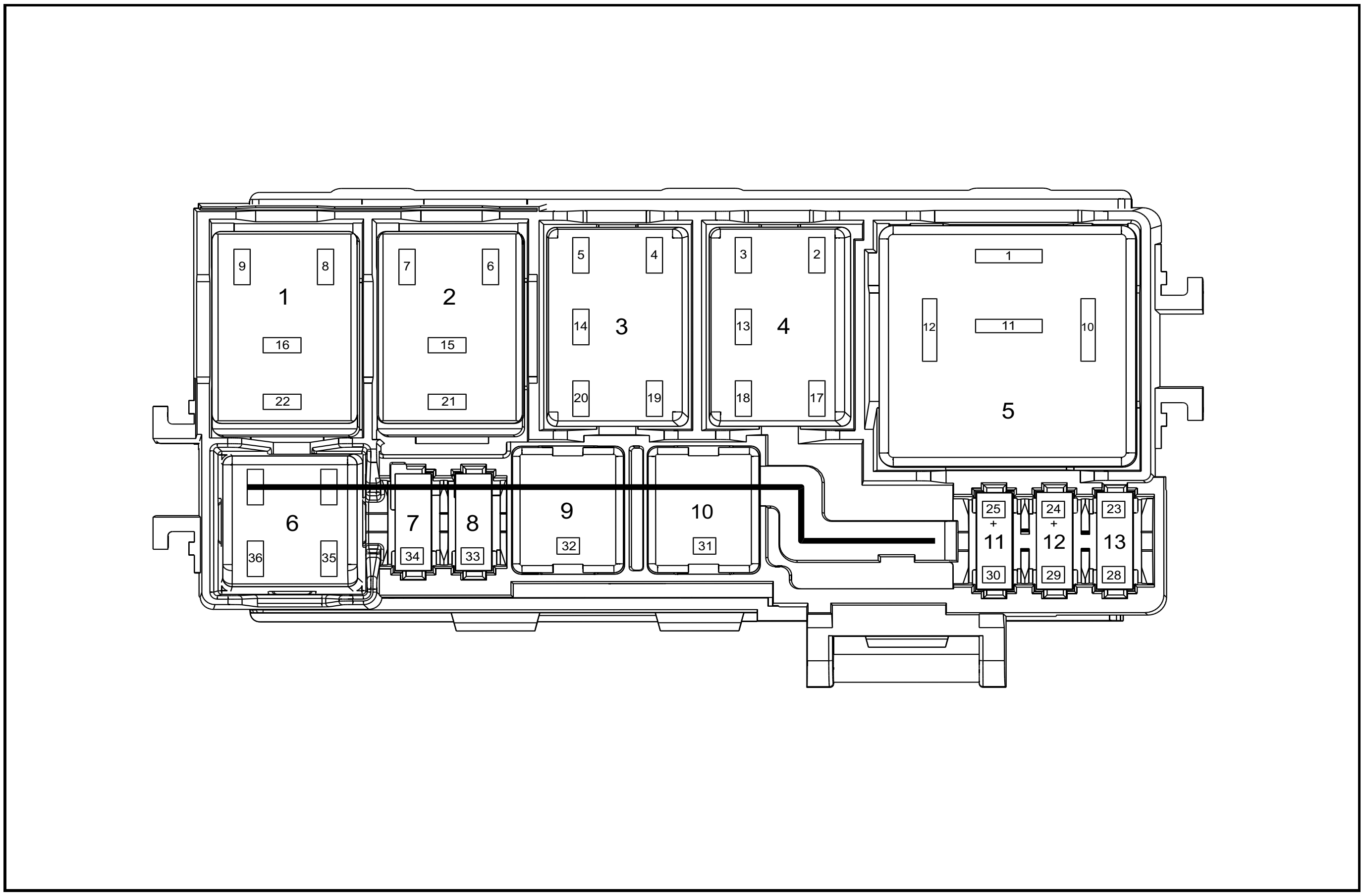
## X50B Fuse Block - Underhood Auxiliary Top View



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### Usage Table

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| **Fuses** | | | | |
| 7 | SPARE | F7UB | — | • Not Used |
| 8 | DEF HTR | F8UB | 25A | • KR121A Reductant Control Module Relay 1 |
| 9 | STARTER | F9UB | 40A | • KR27 Starter Relay |
| 10 | FUEL HTR | F10UB | 40A | • KR22 Fuel Heater Relay |
| 11 | SMART SENSORS | F11UB | 10A | • B136 Exhaust Particulate Sensor<br>• B195A Nitrogen Oxides Sensor 1<br>• B195B Nitrogen Oxides Sensor 2<br>• K111 Fuel Pump Driver Control Module<br>• M103 Turbocharger Vane Position Actuator |
| 12 | SCRPM | F12UB | 10A | • K115 Reductant Control Module |
| 13 | SPARE | F13UB | — | • Not Used |
| **Relays** | | | | |
| 1 | STARTER | KR27 Starter Relay | — | • M64 Starter Motor |
| 2 | FUEL HTR | KR22 Fuel Heater Relay | — | • E11A Fuel Heater/Water in Fuel Sensor |
| 3 | SCR CTRL | KR121A Reductant Control Module Relay 1 | — | • K115 Reductant Control Module |
| 4 | FUEL PUMP | KR23B Fuel Pump Relay - Secondary | — | • G12B Fuel Pump - Secondary (NSQ) |

## Usage Table (cont'd)

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| 5 | FAN DRIVER | KR20F Cooling Fan Relay | — | • Q85 Cooling Fan Clutch |
| 6 | PWRTRN SNSR | KR121B Reductant Control Module Relay 2 | — | • F11UB<br>• F12UB |

# X50B Fuse Block - Underhood Auxiliary Wire Entry

—

### Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 33322942
Service Connector: Service by Component Assembly - See Part Catalog
Description: Wire Entry Fuse Block

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13579915 | J-35616-40 (BU) | J-38125-556 | Not Required | Not Required | Not Required | Not Required |
| II | 19332366 | J-35616-35 (VT) | J-38125-12A | Not Required | Not Required | Not Required | Not Required |
| III | 19370816 | J-35616-42 (RD) | J-38125-556 | Not Required | Not Required | Not Required | Not Required |
| IV | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

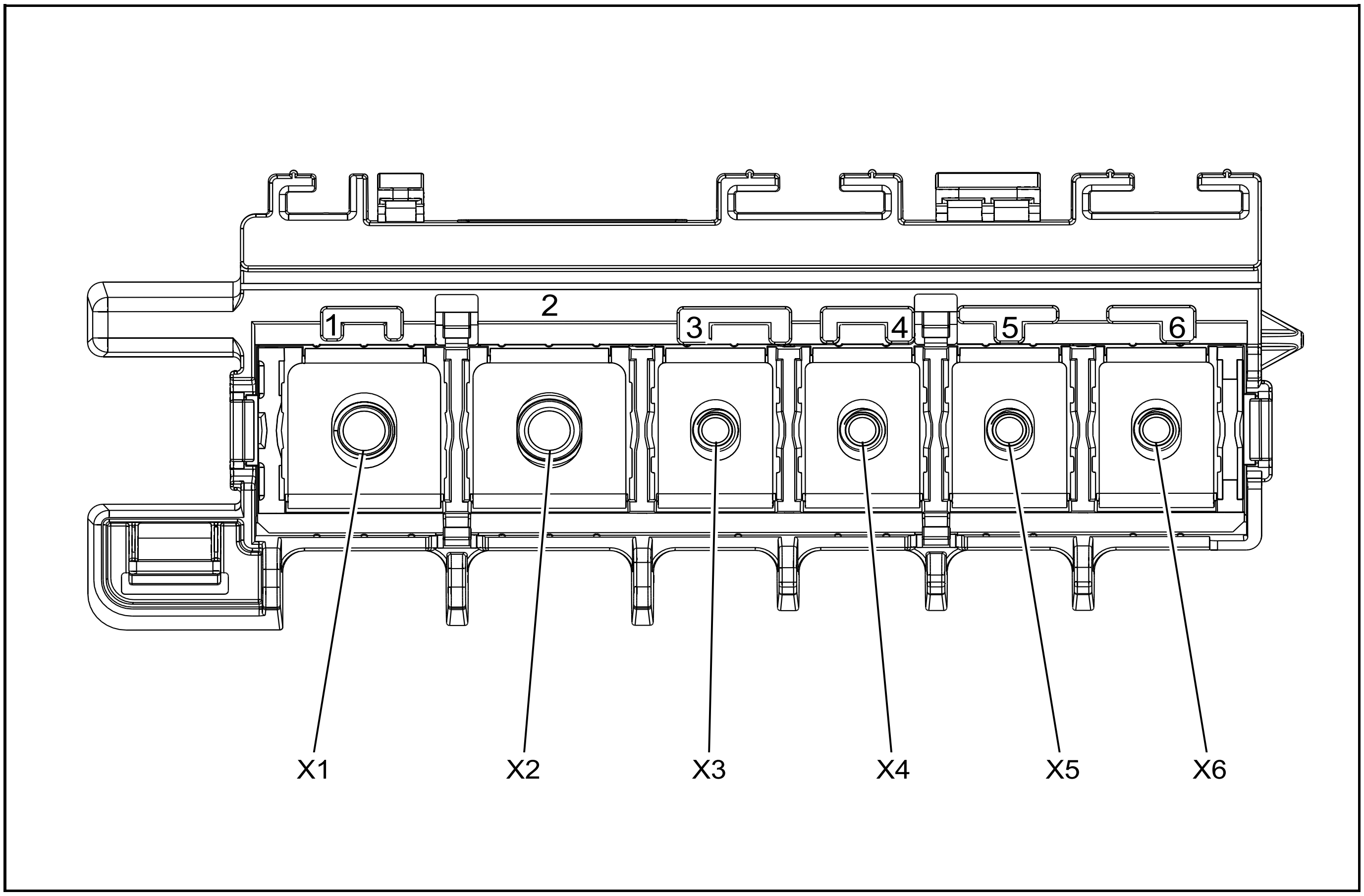
### X50B Fuse Block - Underhood Auxiliary Wire Entry

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/YE | 5297 | Camshaft Position Exhaust Sensor Control 1 | III | — |
| 2 | 1 | BK | 550 | Ground | II | — |
| 3 | 1.5 | VT/GY | 539 | Run/Crank Ignition 1 Voltage | II | — |
| 4 | 0.5 | L-GN/D-BU | 3889 | DEF Power Module Relay Control | II | — |
| 5 | 2.5 | D-BU/BN | 3922 | DEF Heater Supply 2 | II | — |
| 6 | 0.5 | D-BU/L-GN | 7071 | Heater Fuel Control | II | — |
| 7 | 0.5 | VT/L-GN | 355 | Fuel Filter Heater Voltage | II | — |
| 8 | 1 | BK | 550 | Ground | II | — |
| 9 | 0.5 | YE/BK | 625 | Starter Enable Relay Control | II | — |
| 10 | 1 | BK | 550 | Ground | III | — |
| 11 | 0.5 | WH | 2368 | Cooling Fan Control Signal | III | — |
| 12 | 0.5 | WH/BK | 2366 | Cooling Fan Control Relay Speed Signal | III | — |
| 15 | 2.5 | VT/L-GN | 355 | Fuel Filter Heater Voltage | II | — |
| 16 | 3 | YE/VT | 6 | Starter Solenoid Crank Ignition Voltage | II | — |
| 17 | 1 | VT/GY | 539 | Run/Crank Ignition 1 Voltage | II | — |
| 18 | 0.5 | YE/D-BU | 1465 | Secondary Fuel Pump Relay Control | II | — |
| 19 | 0.5<br>2.5 | D-BU<br>D-BU | 3921<br>3921 | DEF Heater Supply 1<br>DEF Heater Supply 1 | II<br>II | —<br>— |
| 20 | 0.5 | D-BU | 3921 | DEF Heater Supply 1 | II | — |
| 21 | 2.5 | VT/L-GN | 355 | Fuel Filter Heater Voltage | II | — |
| 22 | 2.5 | RD/D-BU | 1240 | Battery Positive Voltage | II | — |
| 24 | 0.5 | VT/D-BU | 974 | — | II | — |
| 25 | 2.5 | VT/D-BU | 974 | — | II | — |
| 26 | 10 | RD/WH | 342 | Battery Positive Voltage | IV | — |

## X50B Fuse Block - Underhood Auxiliary Wire Entry (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 29 | 0.5 | VT/L-GN | 4320 | Selective Catalytic Reduction Power Module Wake-Up Signal | II | — |
| 30 | 2.5 | VT/D-BU | 3674 | NOx Sensor 1 Control | II | — |
| 31 | 2.5 | VT/L-GN | 355 | Fuel Filter Heater Voltage | II | — |
| 32 | 2.5 | RD/D-BU | 1240 | Battery Positive Voltage | I | — |
| 33 | 2.5 | D-BU | 3921 | DEF Heater Supply 1 | I | — |
| 35 | 0.5<br>2.5 | VT/D-BU<br>VT/D-BU | 974<br>974 | —<br>— | II<br>II | —<br>— |
| 36 | 0.5 | L-GN/D-BU | 3889 | DEF Power Module Relay Control | II | — |

## X50D Fuse Block - Battery Top View



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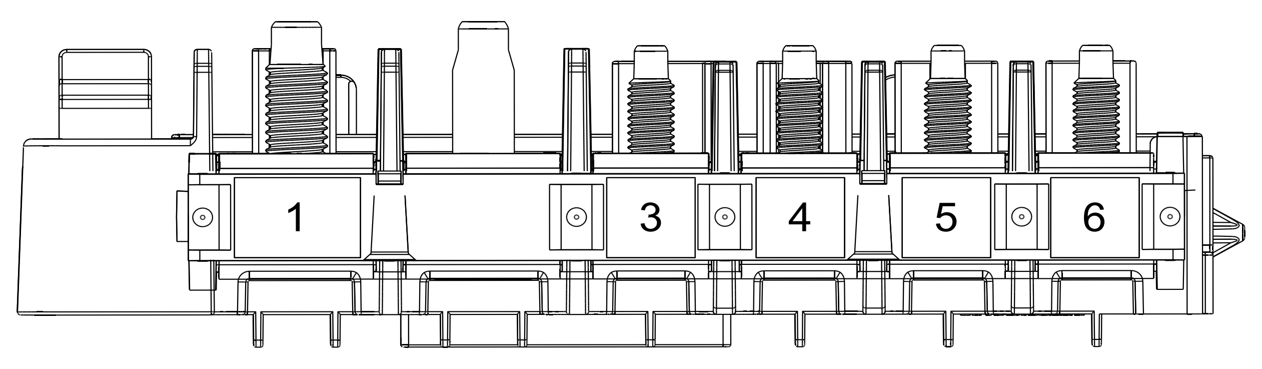
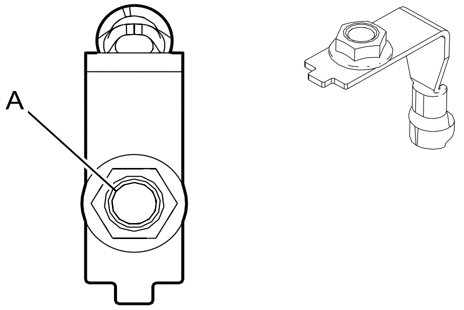
## X50D Fuse Block - Battery Side View



### Usage Table

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| **Fuses** | | | | |
| 1 | — | F1BA | 250A | • G13 Generator<br>• X50A Fuse Block Underhood |
| 2 | — | — | — | • C1 Battery |
| 3 | — | F3BA | 125A | • K34 Glow Plug Control Module |
| 4 | — | F4BA | 100A | • E40 Electrical Auxiliary Heater (C32) |
| 5 | — | F5BA | 60A | • X51R Fuse Block - Instrument Panel Right |
| 6 | — | F6BA | 60A | • X51R Fuse Block - Instrument Panel Right |

# X50D Fuse Block - Battery X4 (C32)



4425476

## Connector Part Information

Harness Type: Body
OEM Connector: 33265775
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

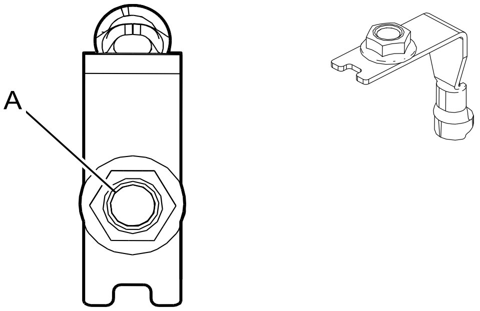
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X50D Fuse Block - Battery X4 (C32)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 10 | RD/GY | 642 | Battery Positive Voltage | I | — |

# X50D Fuse Block - Battery X5



## Connector Part Information

Harness Type: Body
OEM Connector: 33265821
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X50D Fuse Block - Battery X5

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 6 | RD/GY | 142 | Battery Positive Voltage | I | — |

# X50D Fuse Block - Battery X6

—

## Connector Part Information

Harness Type: Body
OEM Connector: 35077346
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

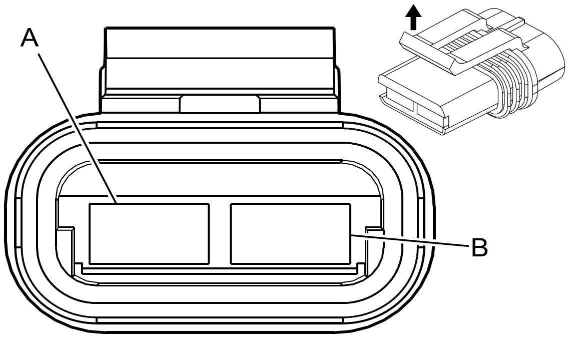
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### X50D Fuse Block - Battery X6

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 6 | RD/L-GN | 242 | Battery Positive Voltage | I | — |

# X55BA Fuse Holder 1 - Brake Booster



523591

## Connector Part Information

Harness Type: Brake Booster
OEM Connector: 1667639C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 630 Metri-Pack Series, Sealed (BK)

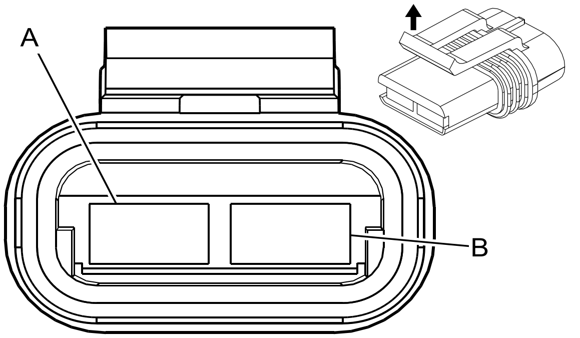
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-42 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X55BA Fuse Holder 1 - Brake Booster

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 2 | GY | 90 | Right Mirror Motor Left Control | I | — |
| B | 2 | GY | 90 | Right Mirror Motor Left Control | II | — |

## X55BB Fuse Holder 2 - Brake Booster



523591

### Connector Part Information

Harness Type: Brake Booster
OEM Connector: 1667639C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 630 Metri-Pack Series, Sealed (BK)

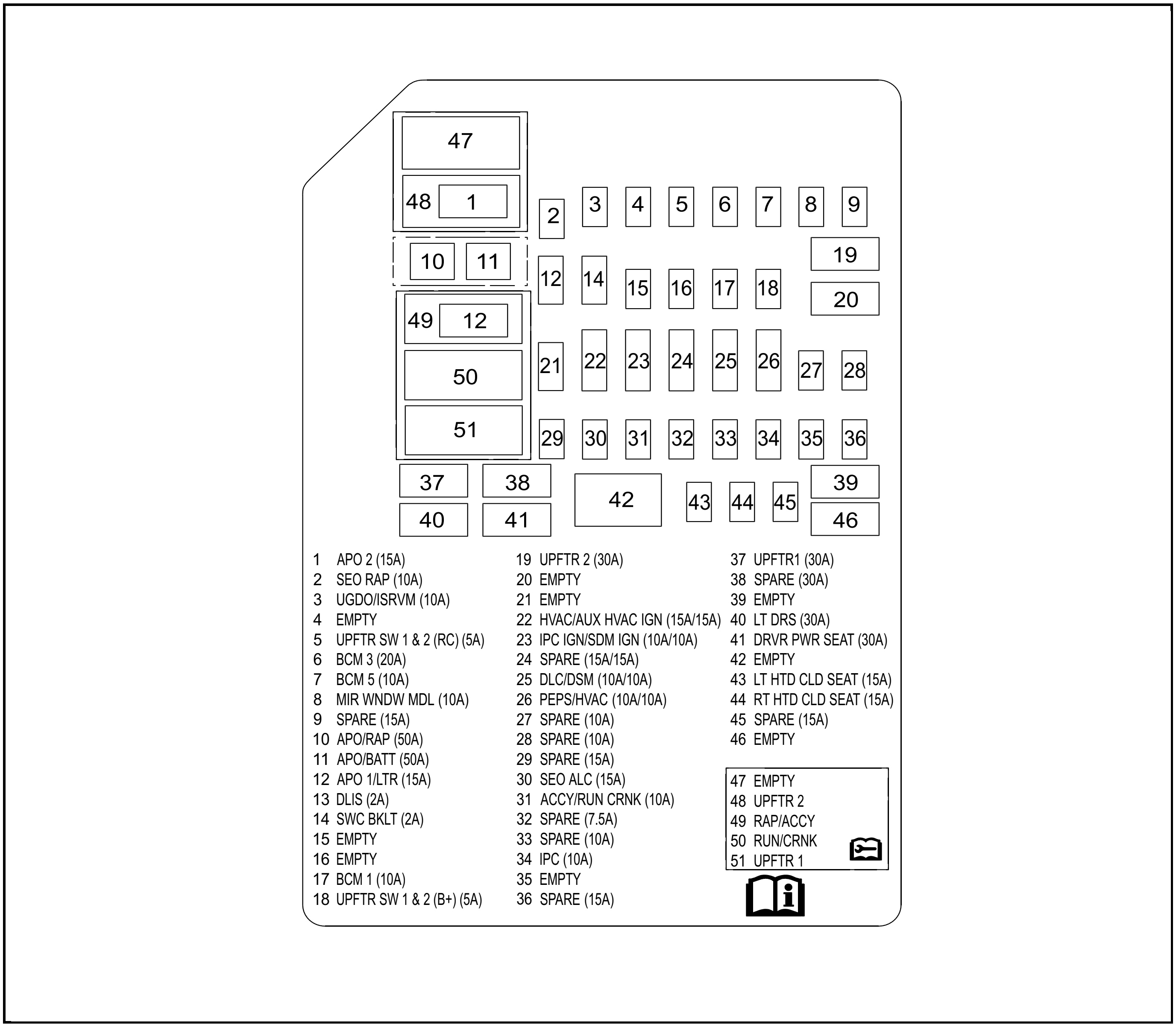
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### X55BB Fuse Holder 2 - Brake Booster

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 2 | GY | 90 | Right Mirror Motor Left Control | I | — |
| B | 2 | GY | 90 | Right Mirror Motor Left Control | I | — |

## X51L Fuse Block - Instrument Panel Left Label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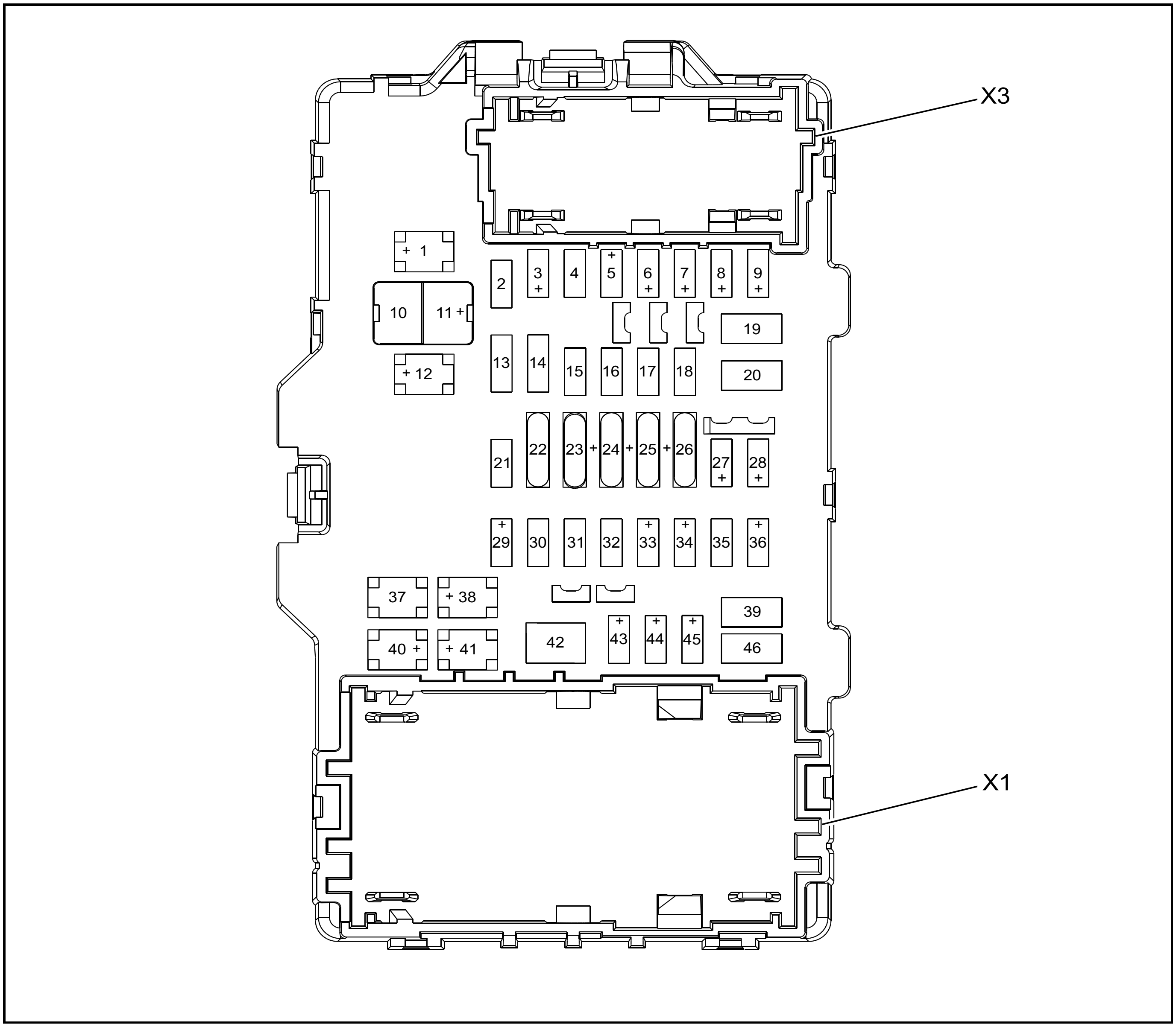
1 APO 2 (15A)
2 SEO RAP (10A)
3 UGDO/ISRVM (10A)
4 EMPTY
5 UPFTR SW 1 & 2 (RC) (5A)
6 BCM 3 (20A)
7 BCM 5 (10A)
8 MIR WNDW MDL (10A)
9 SPARE (15A)
10 APO/RAP (50A)
11 APO/BATT (50A)
12 APO 1/LTR (15A)
13 DLIS (2A)
14 SWC BKLT (2A)
15 EMPTY
16 EMPTY
17 BCM 1 (10A)
18 UPFTR SW 1 & 2 (B+) (5A)
19 UPFTR 2 (30A)
20 EMPTY
21 EMPTY
22 HVAC/AUX HVAC IGN (15A/15A)
23 IPC IGN/SDM IGN (10A/10A)
24 SPARE (15A/15A)
25 DLC/DSM (10A/10A)
26 PEPS/HVAC (10A/10A)
27 SPARE (10A)
28 SPARE (10A)
29 SPARE (15A)
30 SEO ALC (15A)
31 ACCY/RUN CRNK (10A)
32 SPARE (7.5A)
33 SPARE (10A)
34 IPC (10A)
35 EMPTY
36 SPARE (15A)
37 UPFTR1 (30A)
38 SPARE (30A)
39 EMPTY
40 LT DRS (30A)
41 DRVR PWR SEAT (30A)
42 EMPTY
43 LT HTD CLD SEAT (15A)
44 RT HTD CLD SEAT (15A)
45 SPARE (15A)
46 EMPTY

47 EMPTY
48 UPFTR 2
49 RAP/ACCY
50 RUN/CRNK
51 UPFTR 1

4894103

## X51L Fuse Block - Instrument Panel Left Top View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4894104

### Usage Table

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| **Fuses** | | | | |
| 1 | APO 2 | F1DL | 15A | • X80G Accessory Power Receptacle - Instrument Panel (-D07)<br>• X80K Accessory Power Receptacle - Instrument Panel 2 (D07) |
| 2 | SEO RAP | F2DL | 10A | • X61A Junction Block-Instrument Panel<br>• T22 Modile Device Wireless Charger Module (K4C) |
| 3 | UGDO/ISRVM | F3DL | 10A | • S63 Roof Beacon Switch (TRW) |
| 4 | EMPTY | F4DL | — | • Not Used |
| 5 | UPFTR SW 1 and 2 (RC) | F5DL | 5A | • KR161A Configurable Provision Relay 1 (9L7)<br>• KR161B Configurable Provision Relay 2 (9L7) |

## Usage Table (cont'd)

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| 6 | BCM 3 | F6DL | 20A | • K9 Body Control Module<br>• E4H Headlamp - Right Low Beam<br>• E4S Park/Turn Signal Lamp - Left Upper<br>• E4Q Park/Turn Signal Lamp - Left Lower<br>• E4Y Turn Signal Reapeater Lamp - Left (DPN)<br>• KR68L Turn Signal Lamps Relay - Left (5DX/5DY)<br>• X117 Right Snow Plow Headlight Harness to Right Snow Plow Light Harness (UNL) |
| 7 | BCM 5 | F7DL | 10A | • K9 Body Control Module<br>• KR40 Backup Lamp Relay<br>• KR113 Child Security Lock Disable Relay<br>• KR114 Door Dead Lock Relay<br>• S48A Multifunction Switch - Instrument Panel<br>• S77 Transfer Case Shift Control Switch (NQF)<br>• S79D Window Switch - Driver (Crew Cab) |
| 8 | MIR WNDW MDL | F8DL | 10A | • S52 Outside Rearview Mirror Switch (DPN)<br>• S79D Window Switch - Driver (A31) |
| 9 | SPARE | F9DL | 15A | • Not Used |
| 10 | APO/RAP | F10DL | 50A | • F1DL<br>• F12DL |
| 11 | APO/BATT | F11DL | 50A | • F1DL<br>• F12DL |
| 12 | APO 1/LTR | F12DL | 15A | • X80J Accessory Power Receptacle - Instrument Panel 1 (D07) |
| 13 | DLIS | F13DL | 2A | • S39 Ignition Switch |
| 14 | SWC BKLT | F14DL | 2A | • S70L Steering Wheel Controls Switch - Left (-UK3) |
| 15 | EMPTY | F15DL | — | • Not Used |
| 16 | EMPTY | F16DL | — | • Not Used |

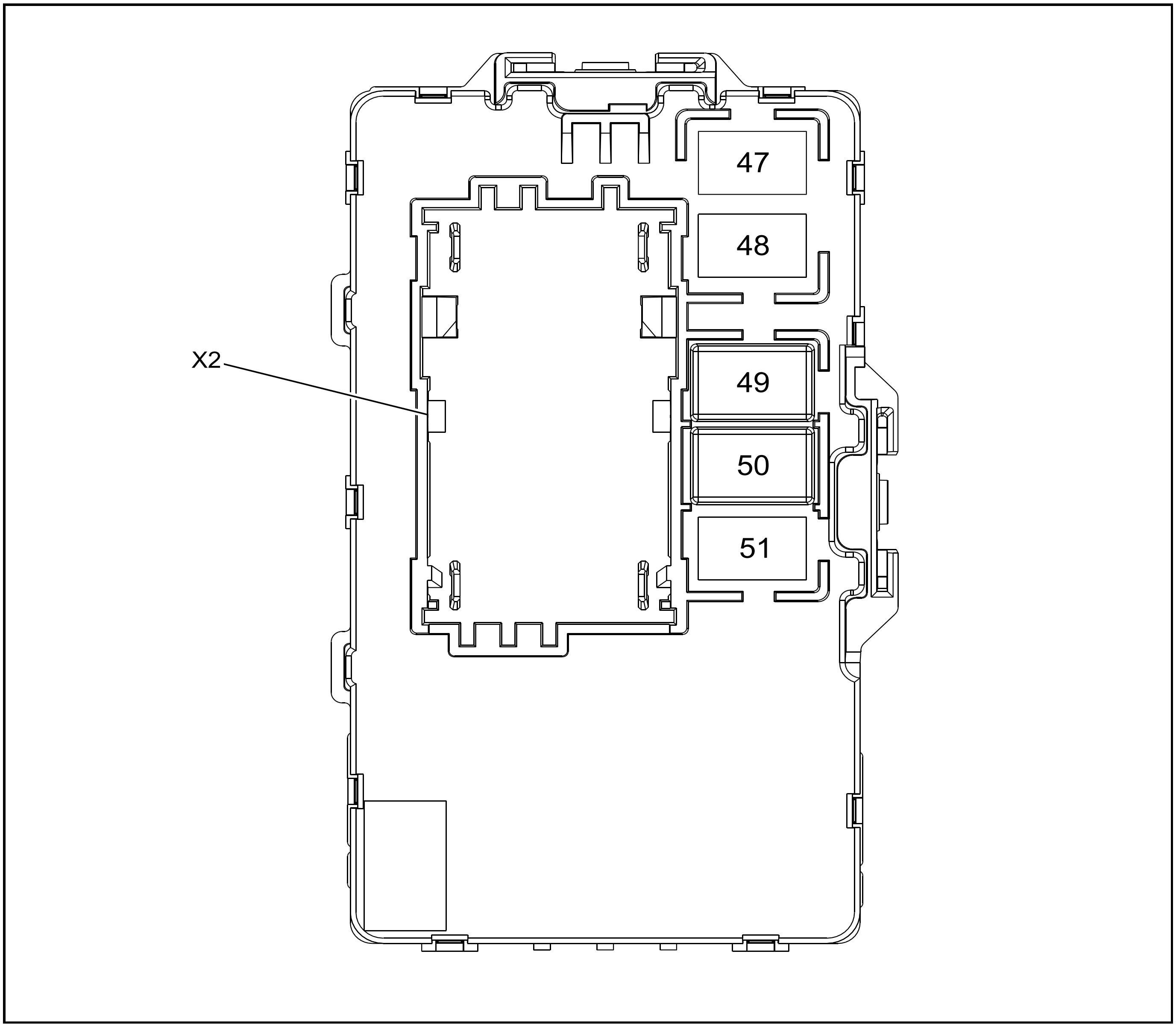
## Usage Table (cont'd)

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| 17 | BCM 1 | F17DL | 10A | • K9 Body Control Module<br>• E1L Accent Lamp - Overhead Console<br>• E63D Flood Lamp - Driver Door Handle (A31)<br>• E63 Flood Lamp - Passenger Door Handle (A31)<br>• K17 Electronic Brake Control Module<br>• K20 Engine Control Module<br>• K34 Glow Plug Control Module<br>• K36 Inflatable Restraint Sensing and Diagnostic Module<br>• K38A Chassis Control Module - Auxiliary (JL1)<br>• K44 Power Take-Off Control Module (PTO)<br>• K56 Serial Data Gateway Module<br>• K69 Transfer Case Control Module (NQF)<br>• K71 Transmission Control Module<br>• K73 Telematics Communication Interface Control Module (UE1)<br>• K74 Human Machine Interface Control Module (IO5/IO6)<br>• K77 Remote Control Door Lock Receiver<br>• K89 Immobilizer Control Module<br>• KR11 Windshield Washer Pump Relay<br>• KR12B Windshield Wiper Relay<br>• KR59 Stop Lamp Relay<br>• KR73 Ignition Main Relay (X50A Fuse Block Underhood)<br>• KR73 Ignition Main Relay (X51L Fuse Block Instrument Panel - Left)<br>• KR112 Cargo Lamp Relay<br>• S48A Multifunction Switch - Instrument Panel<br>• S70L Steering Wheel Controls Switch - Left<br>• TBD7 BRAKE BOOSTER DIODE |
| 18 | UPFTR SW 1 and 2 (B+) | F18DL | 5A | • KR161A Configurable Provision Relay 1 (9L7)<br>• KR161B Configurable Provision Relay 2 (9L7) |
| 19 | UPFTR 2 | F19DL | 30A | • X61A Junction Block-Instrument Panel (9L7) |
| 20 | EMPTY | F20DL | — | • Not Used |
| 21 | EMPTY | F21DL | — | • Not Used |
| 22 | HVAC/AUX HVAC IGN | F22DL | 15A/15A | • K33 HVAC Control Module<br>• E40 Electrical Auxiliary Heater (C32) |
| 23 | IPC IGN/SDM IGN | F23DL | 10A/10A | • P14 Passenger Air Bag Disable Indicator (C99)<br>• P16 Instrument Cluster |
| 24 | SPARE | F24DL | 15A/15A | • Not Used |
| 25 | DLC/DSM | F25DL | 10A/10A | • X84 Data Link Connector |
| 26 | PEPS/HVAC | F26DL | 10A/10A | • K33 HVAC Control Module<br>• K56 Serial Data Gateway Module |
| 27 | SPARE | F27DL | 10A | • Not Used |
| 28 | SPARE | F28DL | 10A | • Not Used |
| 29 | SPARE | F29DL | 15A | • Not Used |
| 30 | SEO ALC | F30DL | 15A | • W12 Blunt Cut - Emergency Vehicle Provision (ANM)<br>• X61A Junction Block-Instrument Panel (-ANM) |

## Usage Table (cont'd)

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| 31 | ACCY/RUN CRNK | F31DL | 10A | • A10 Inside Rearview Mirror (DD8)<br>• K69 Transfer Case Control Module (NQF)<br>• B87 Rearview Camera (UVC)<br>• S48A Multifunction Switch - Instrument Panel (PTO) |
| 32 | SPARE | F32DL | 7.5A | • Not Used |
| 33 | SPARE | F33DL | 10A | • Not Used |
| 34 | IPC | F34DL | 10A | • A26 HVAC Controls<br>• P16 Instrument Cluster<br>• P17 Info Display Module (IO3/IO5/IO6)<br>• S32D Seat Heating Switch - Driver (KA1)<br>• S32P Seat Heating Switch - Passenger (KA1) |
| 35 | EMPTY | F35DL | — | • Not Used |
| 36 | SPARE | F36DL | 15A | • Not Used |
| 37 | UPFTR 1 | F37DL | 30A | • X61A Junction Block-Instrument Panel (9L7) |
| 38 | SPARE | F38DL | 30A | • Not Used |
| 39 | EMPTY | F39DL | — | • Not Used |
| 40 | LT DRS | F40DL | 30A | • M74D Window Motor-Driver (A31)<br>• S79LR Window Switch-Left Rear (Crew Cab) |
| 41 | DRVR PWR SEAT | F41DL | 30A | • S64D Seat Adjuster Switch-Driver (A95/AZF) |
| 42 | EMPTY | F42DL | — | • Not Used |
| 43 | LT HTD CLD SEAT | F43DL | 15A | • K29 Seat Heating Control Module (KA1) |
| 44 | RH HTD CLD SEAT | F44DL | 15A | • K29 Seat Heating Control Module (KA1) |
| 45 | SPARE | F45DL | 15A | • Not Used |
| 46 | EMPTY | F46DL | — | • Not Used |

## X51L Fuse Block - Instrument Panel Left Bottom View



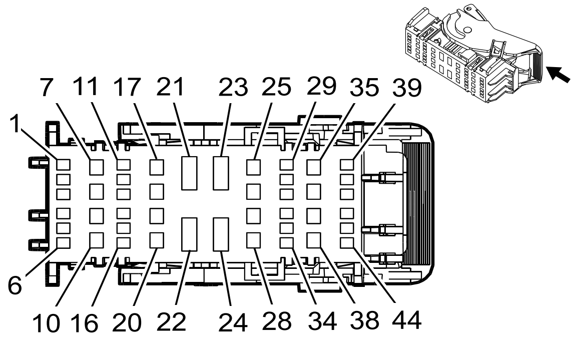
### Usage Table

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| **Relays** | | | | |
| 47 | EMPTY | — | — | • Not Used |
| 48 | UPFTR 2 | KR161B Configurable Provision Relay 2 | — | • F19DL |
| 49 | RAP/ACCY | KR76A Retained Accessory Power Relay 1 | — | • F2DL<br>• F10DL |
| 50 | RUN/CRNK | KR73 Ignition Main Relay | — | • F22DL<br>• F23DL<br>• F30DL<br>• F31DL<br>• F32DL<br>• F33DL |

## Usage Table (cont'd)

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| 51 | UPFTR 1 | KR161A Configurable Provision Relay 1 | — | • F37DL |

# X51L Fuse Block - Instrument Panel Left X1



3240123

## Connector Part Information

Harness Type: Body
OEM Connector: 13967687
Service Connector: 19329455
Description: 44-Way F 1.5, 2.8, 800 Metri-Pack Series (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19301752 | J-35616-4A (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| II | 19301761 | J-35616-4A (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| III | 19301767 | J-35616-2A (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| IV | 19367554 | J-35616-44 (YE) | J-38125-558 | Not Available | Not Available | Not Available | Not Available |

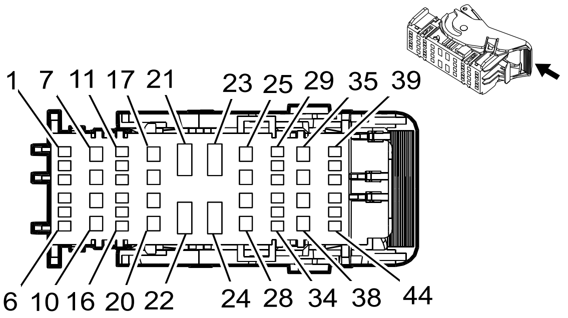
## X51L Fuse Block - Instrument Panel Left X1

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 11 | — | — | — | Not Occupied | — | — |
| 12 | 0.5 | YE/WH | 962 | — | III | — |
| 13 - 15 | — | — | — | Not Occupied | — | — |
| 16 | 0.5 | RD/VT | 1940 | Battery Positive Voltage | III | — |
| 17 | 0.75 | RD/L-GN | 6140 | Battery Positive Voltage | II | — |
| 18 | 0.75 | RD/L-GN | 5140 | Battery Positive Voltage | II | — |
| 19 - 20 | — | — | — | Not Occupied | — | — |
| 21 | 6 | RD/VT | 842 | Battery Positive Voltage | IV | — |
| 22 | — | — | — | Not Occupied | — | — |
| 23 | 6 | RD/D-BU | 42 | Battery Positive Voltage | IV | — |
| 24 - 26 | — | — | — | Not Occupied | — | — |
| 27 | 2.5 | RD/YE | 5040 | Battery Positive Voltage | I | — |
| 28 - 29 | — | — | — | Not Occupied | — | — |
| 30 | 0.5 | VT/WH | 1939 | Run/Crank Ignition 1 Voltage | III | — |
| 31 | — | — | — | Not Occupied | — | — |
| 32 | 0.35 | VT/L-GN | 1739 | Run/Crank Ignition 1 Voltage | III | — |

## X51L Fuse Block - Instrument Panel Left X1 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 33 - 34 | — | — | — | Not Occupied | — | — |
| 35 | 2.5 | D-BU | 965 | — | I | — |
| 36 | 2.5 | RD/D-BU | 1842 | Battery Positive Voltage | I | — |
| 37 | 2.5 | RD/D-BU | 1842 | Battery Positive Voltage | I | — |
| 38 | — | — | — | Not Occupied | — | — |
| 39 | 0.5 | RD/WH | 961 | — | III | — |
| 40 - 41 | — | — | — | Not Occupied | — | — |
| 42 | 0.35 | L-GN/VT | 5199 | Run/Crank Relay Coil Control | III | — |
| 43 | 0.35 | GY/VT | 755 | RAP Relay Coil Control | III | — |
| 44 | 0.35 | VT/YE | 43 | Accessory Ignition Voltage | III | — |

## X51L Fuse Block - Instrument Panel Left X2



3240119

### Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13967688
Service Connector: 19329456
Description: 44-Way F 1.5, 2.8, 800 Metri-Pack Series (GY)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300649 | J-35616-4A (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| II | 19301752 | J-35616-4A (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| III | 19301761 | J-35616-4A (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| IV | 19301767 | J-35616-2A (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |

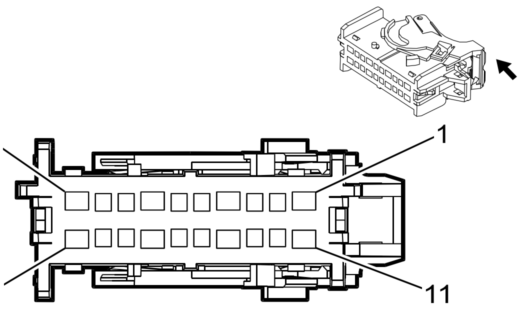
### X51L Fuse Block - Instrument Panel Left X2

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 2 | — | — | — | Not Occupied | — | — |
| 3 | 0.5 | YE | 6817 | LED Backlight Dimming Control | IV | — |
| 4 | 0.35 | BN | 6136 | Control | IV | — |
| 5 | 0.35 | RD/D-BU | 540 | Battery Positive Voltage | IV | — |
| 6 | — | — | — | Not Occupied | — | — |
| 7 | 0.75 | RD/BN | 2940 | Battery Positive Voltage | III | — |
| 8 | 1 | RD/GY | 2140 | Battery Positive Voltage | III | — |
| 9 | — | — | — | Not Occupied | — | — |
| 10 | 1.5 | RD/BN | 4240 | Battery Positive Voltage | II | — |
| 11 - 12 | — | — | — | Not Occupied | — | — |
| 13 | 0.5 | VT/L-GN | 39 | Run/Crank Ignition 1 Voltage | IV | — |
| 14 | — | — | — | Not Occupied | — | — |
| 15 | 0.5 | VT/GY | 539 | Run/Crank Ignition 1 Voltage | IV | — |
| 16 | — | — | — | Not Occupied | — | — |
| 17 | 2.5 | GY/BK | 966 | — | II | — |
| 18 | 0.75 | RD/WH | 2740 | Battery Positive Voltage | III | — |

## X51L Fuse Block - Instrument Panel Left X2 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 19 | — | — | — | Not Occupied | — | — |
| 20 | 1.5 | RD/WH | 1040 | Battery Positive Voltage | II | — |
| 21 - 24 | — | — | — | Not Occupied | — | — |
| 25 | 0.35<br>0.5 | RD/VT<br>RD/VT | 3340<br>3340 | Battery Positive Voltage<br>Battery Positive Voltage | III<br>III | —<br>— |
| 26 | 0.35 | RD/D-BU | 3240 | Battery Positive Voltage | I | — |
| 27 | — | — | — | Not Occupied | — | — |
| 28 | 0.5 | VT/BK | 1639 | Run/Crank Ignition 1 Voltage | I | — |
| 29 - 34 | — | — | — | Not Occupied | — | — |
| 35 | 0.5 | RD/GY | 2840 | Battery Positive Voltage | I | — |
| 36 - 37 | — | — | — | Not Occupied | — | — |
| 38 | 0.35 | VT/L-GN | 1739 | Run/Crank Ignition 1 Voltage | III | — |
| 39 - 43 | — | — | — | Not Occupied | — | — |
| 44 | 0.75 | BK | 1850 | Ground | IV | — |

# X51L Fuse Block - Instrument Panel Left X3



## Connector Part Information

Harness Type: Headliner
OEM Connector: 15547106
Service Connector: 13597270
Description: 20-Way F 1.5, 2.8 OCS Series (BK)

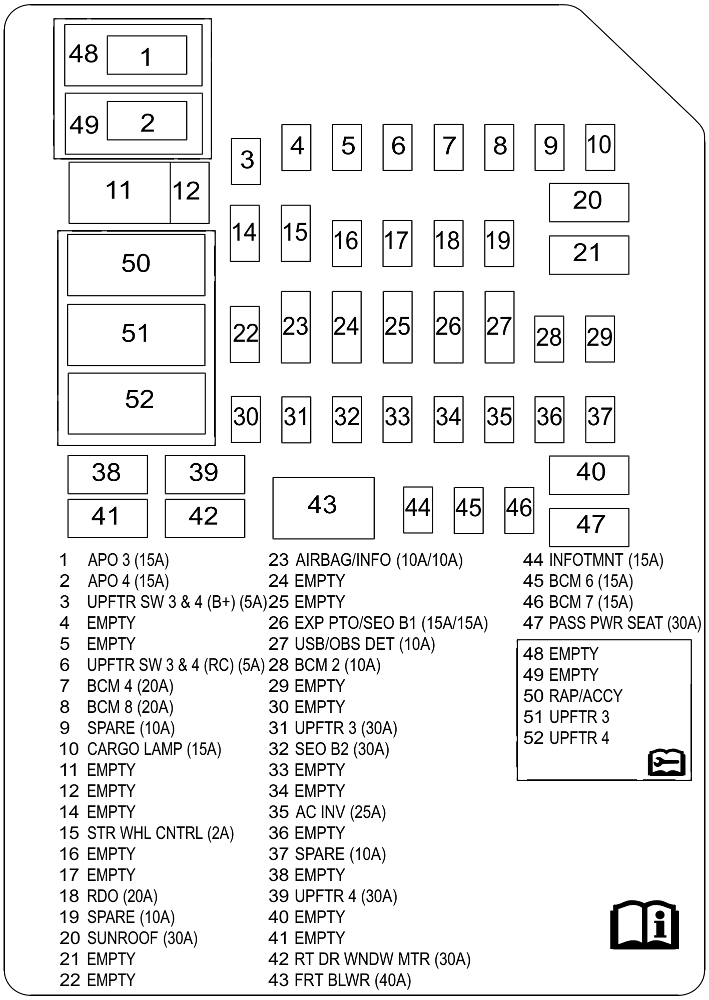
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19301761 | J-35616-35 (VT) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| II | 19301767 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |

## X51L Fuse Block - Instrument Panel Left X3

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 10 | — | — | — | Not Occupied | — | — |
| 11 | 0.35 | VT/YE | 43 | Accessory Ignition Voltage | I | — |
| 12 | 0.5 | RD/YE | 240 | Battery Positive Voltage | II | — |
| 13 | 0.35 | VT/L-GN | 1739 | Run/Crank Ignition 1 Voltage | II | — |
| 14 | 0.35 | VT/BK | 1139 | Run/Crank Ignition 1 Voltage | I | — |
| 15 - 20 | — | — | — | Not Occupied | — | — |

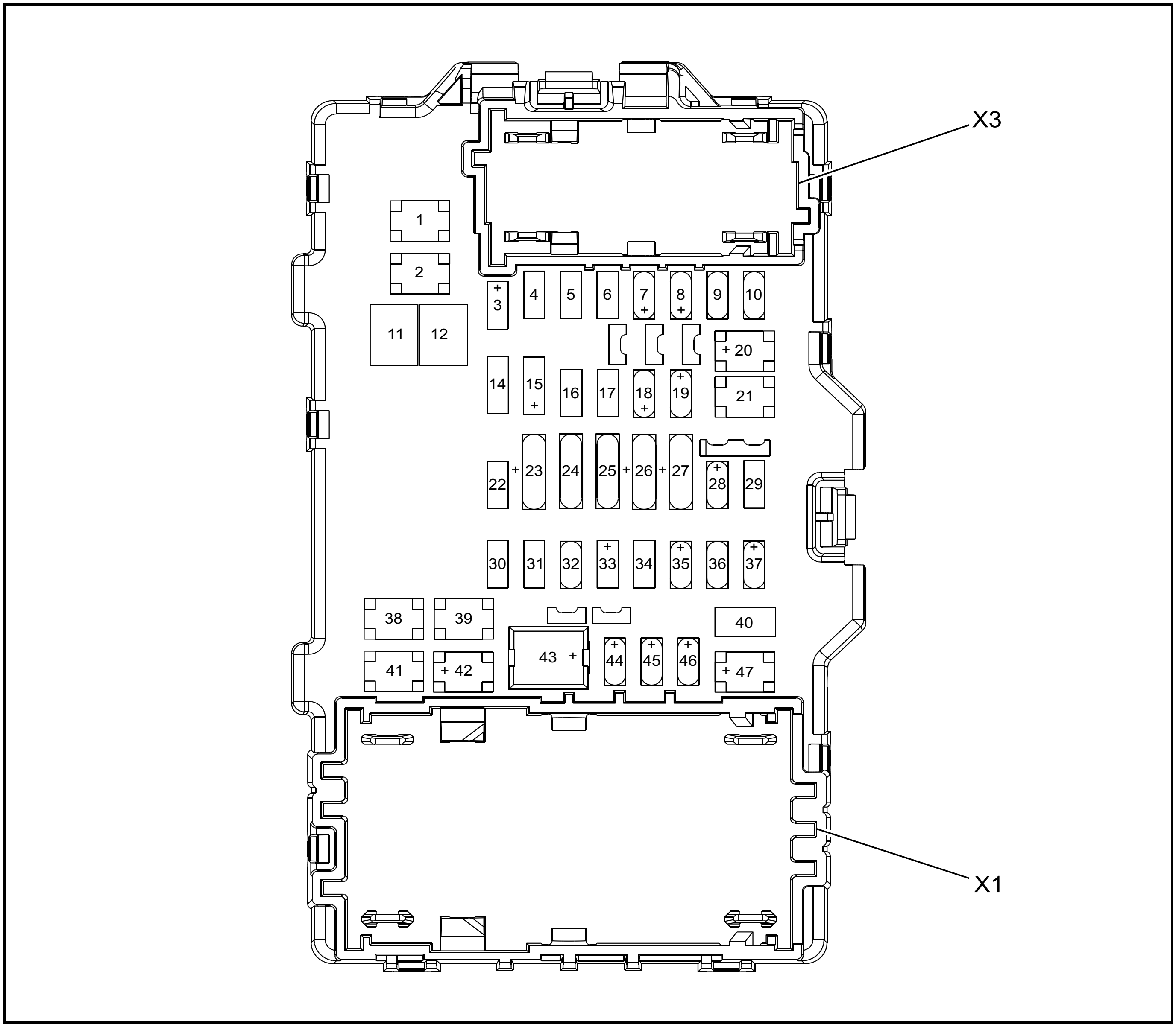
## X51R Fuse Block - Instrument Panel Right Label



| | |
|---|---|
| 1 | APO 3 (15A) |
| 2 | APO 4 (15A) |
| 3 | UPFTR SW 3 & 4 (B+) (5A) |
| 4 | EMPTY |
| 5 | EMPTY |
| 6 | UPFTR SW 3 & 4 (RC) (5A) |
| 7 | BCM 4 (20A) |
| 8 | BCM 8 (20A) |
| 9 | SPARE (10A) |
| 10 | CARGO LAMP (15A) |
| 11 | EMPTY |
| 12 | EMPTY |
| 14 | EMPTY |
| 15 | STR WHL CNTRL (2A) |
| 16 | EMPTY |
| 17 | EMPTY |
| 18 | RDO (20A) |
| 19 | SPARE (10A) |
| 20 | SUNROOF (30A) |
| 21 | EMPTY |
| 22 | EMPTY |
| 23 | AIRBAG/INFO (10A/10A) |
| 24 | EMPTY |
| 25 | EMPTY |
| 26 | EXP PTO/SEO B1 (15A/15A) |
| 27 | USB/OBS DET (10A) |
| 28 | BCM 2 (10A) |
| 29 | EMPTY |
| 30 | EMPTY |
| 31 | UPFTR 3 (30A) |
| 32 | SEO B2 (30A) |
| 33 | EMPTY |
| 34 | EMPTY |
| 35 | AC INV (25A) |
| 36 | EMPTY |
| 37 | SPARE (10A) |
| 38 | EMPTY |
| 39 | UPFTR 4 (30A) |
| 40 | EMPTY |
| 41 | EMPTY |
| 42 | RT DR WNDW MTR (30A) |
| 43 | FRT BLWR (40A) |
| 44 | INFOTMNT (15A) |
| 45 | BCM 6 (15A) |
| 46 | BCM 7 (15A) |
| 47 | PASS PWR SEAT (30A) |
| 48 | EMPTY |
| 49 | EMPTY |
| 50 | RAP/ACCY |
| 51 | UPFTR 3 |
| 52 | UPFTR 4 |

4894111

## X51R Fuse Block - Instrument Panel Right Top View


X3
1
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41
+ 42
43 +
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+ 46
+ 47
X1

4894113

### Usage Table

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| **Fuses** | | | | |
| 1 | APO 3 | F1DR | 15A | • X80D Accessory Power Receptacle - Center Console Compartment (D07)<br>• X80E Accessory Power Receptacle - Center Seat (-D07) |
| 2 | APO 4 | F2DR | 15A | • X80D Accessory Power Receptacle - Center Console Compartment (-D07)<br>• X80L Accessory Power Receptacle - Center Console Rear (D07) |
| 3 | UPFTR SW 3 and 4 (B+) | F3DR | 5A | • KR161C Configurable Provision Relay 3 (9L7)<br>• KR161D Configurable Provision Relay 4 (9L7) |
| 4 | EMPTY | F4DR | — | • Not Used |
| 5 | EMPTY | F5DR | — | • Not Used |

## Usage Table (cont'd)

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| 6 | UPFTR SW 3 and 4 (RC) | F6DR | 5A | • KR161C Configurable Provision Relay 3 (9L7)<br>• KR161D Configurable Provision Relay 4 (9L7) |
| 7 | BCM 4 | F7DR | 20A | • K9 Body Control Module<br>• E4G Headlamp - Left Low Beam<br>• E4T Park/Turn Signal Lamp - Right Upper<br>• E4R Park/Turn Signal Lamp - Right Lower<br>• E4Z Turn Signal Repeater Lamp - Right (DPN)<br>• KR68R Turn Signal Lamps Relay - Right (5DX/5DY)<br>• X107 Left Snow Plow Headlight Harness to Left Snow Plow Light Harness (UNL) |
| 8 | BCM 8 | F8DR | 20A | • K9 Body Control Module<br>• A23D Door Latch Assembly - Driver<br>• A23LR Door Latch Assembly - Left Rear (Crew Cab)<br>• A23P Door Latch Assembly - Passenger<br>• A23RR Door Latch Assembly - Right Rear (Crew Cab) |
| 9 | SPARE | F9DR | 10A | • Not Used |
| 10 | CARGO LAMP | F10DR | 15A | • E6 Center High Mounted Stop Lamp<br>• E33 Cargo Lamp<br>• E70D Outside Rearview Mirror Cargo Lamp - Driver (DPN)<br>• E70P Outside Rearview Mirror Cargo Lamp - Passenger (DPN) |
| 11 | EMPTY | F11DR | — | • Not Used |
| 12 | EMPTY | F12DR | — | • Not Used |
| 14 | EMPTY | F14DR | — | • Not Used |
| 15 | STR WHL CNTRL | F15DR | 2A | • S70L Steering Wheel Controls - Left<br>• S70R Steering Wheel Controls Switch - Right (UK3) |
| 16 | EMPTY | F16DR | — | • Not Used |
| 17 | EMPTY | F17DR | — | • Not Used |
| 18 | RDO | F18DR | 20A | • A11 Radio (IO3/IO5/IO6)<br>• A33 Media Disc Player (TG5)<br>• K74 Human Machine Interface Control (IO5/IO6)<br>• X83 Auxiliary Audio Input (D07)<br>• X92 USB Receptacle (D07) |
| 19 | SPARE | F19DR | 10A | • Not Used |
| 20 | SUNROOF | F20DR | 30A | • KR58 Roof Beacon Relay (TRW) |
| 21 | EMPTY | F21DR | — | • Not Used |
| 22 | EMPTY | F22DR | — | • Not Used |
| 23 | AIRBAG/INFO | F23DR | 10A/10A | • K36 Inflatable Restraint Sensing and Diagnostic Module<br>• K73 Telematics Communication Interface Control Module (UE1) |
| 24 | EMPTY | F24DR | — | • Not Used |
| 25 | EMPTY | F25DR | — | • Not Used |
| 26 | EXP PTO/SEO B1 | F26DR | 15A/15A | • K44 Power Take - Off Control Module (PTO)<br>• X191 Engine Chassis Harness to Engine Chassis Harness (PTO) |
| 27 | USB/OBS DET | F27DR | 10A | • X83 Auxiliary Audio Input (-D07) |

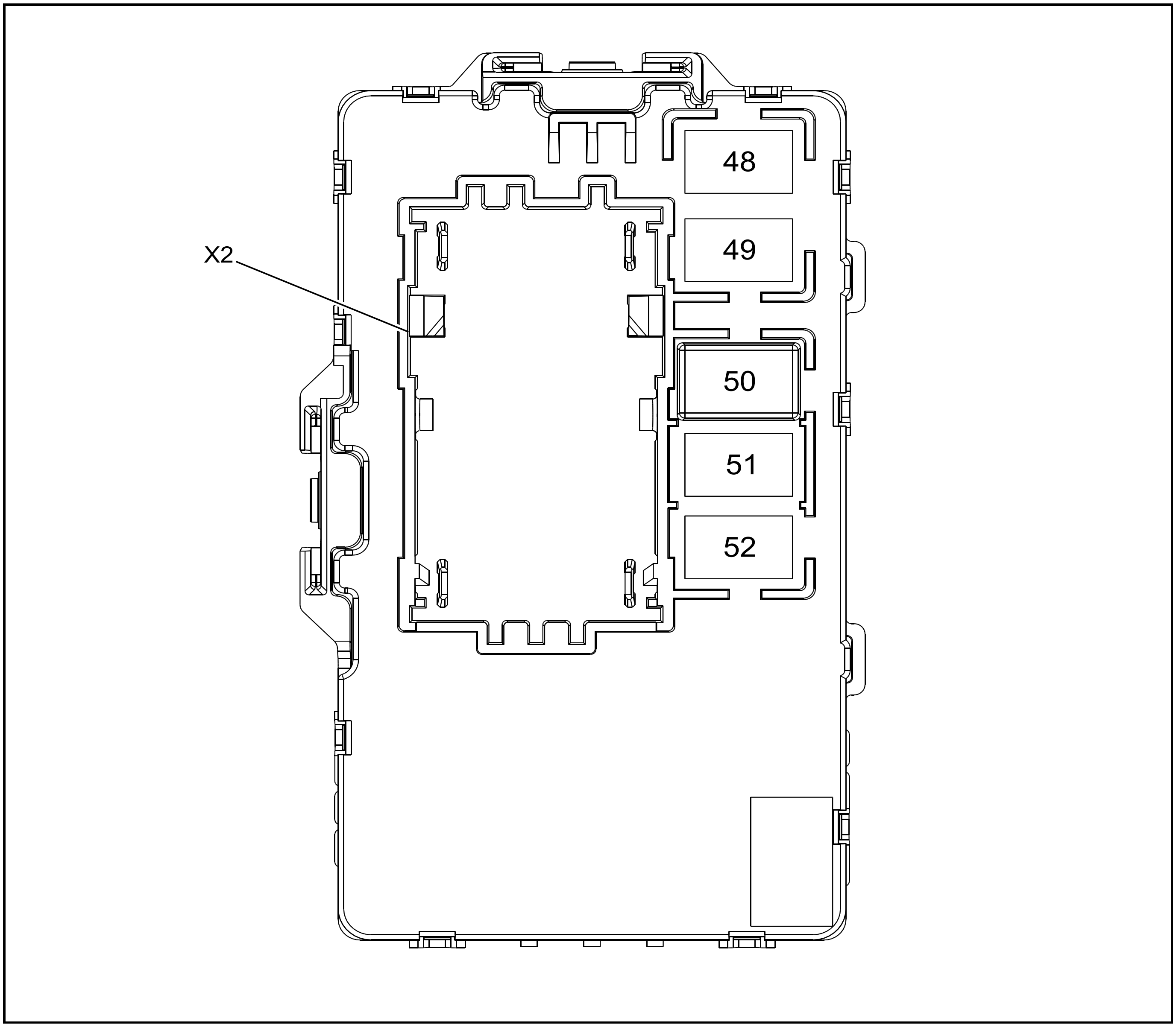
## Usage Table (cont'd)

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| 28 | BCM 2 | F28DR | 10A | • K9 Body Control Module<br>• B10B Ambient Light/Sunload Sensor<br>• K17 Electronic Brake Control Module<br>• K36 Inflatable Restraint Sensing and Diagnostic Module<br>• K44 Power Take-Off Control Module (PTO)<br>• K56 Serial Data Gateway Module<br>• K71 Transmission Control Module<br>• K73 Telematics Communication Interface Control Module (UE1)<br>• K74 Human Machine Interface Control Module (IO5/IO6)<br>• K77 Remote Control Door Lock Receiver<br>• K89 Immobilizer Control Module<br>• KR12B Windshield Wiper Relay<br>• S70L Steering Wheel Controls Switch - Left<br>• S77 Transfer Case Shift Control Switch (NQF)<br>• X61A Junction Block - Instrument Panel<br>• X81 Accessory Power Receptacle - 110V AC (KI4) |
| 29 | EMPTY | F29DR | — | • Not Used |
| 30 | EMPTY | F30DR | — | • Not Used |
| 31 | UPFTR 3 | F31DR | 30A | • X61A Junction Block - Instrument Panel (9L7) |
| 32 | SEO B2 | F32DR | 30A | • X61A Junction Block - Instrument Panel |
| 33 | EMPTY | F33DR | — | • Not Used |
| 34 | EMPTY | F34DR | — | • Not Used |
| 35 | AC INV | F35DR | 25A | • T1 Accessory DC/AC Power Inverter Module (KI4) |
| 36 | EMPTY | F36DR | — | • Not Used |
| 37 | SPARE | F37DR | 10A | • Not Used |
| 38 | EMPTY | F38DR | — | • Not Used |
| 39 | UPFTR 4 | F39DR | 30A | • X61A Junction Block-Instrument Panel (9L7/JPZ)<br>• AIR PRESSURE RELEASE RELAY (JPZ) |
| 40 | EMPTY | F40DR | — | • Not Used |
| 41 | EMPTY | F41DR | — | • Not Used |
| 42 | RT DR WNDW MTR | F42DR | 30A | • S79P Window Switch - Passenger (A31)<br>• S79RR window Switch - Right Rear (Crew Cab) |
| 43 | FRT BLWR | F43DR | 40A | • M8 Blower Motor |
| 44 | INFOTMNT | F44DR | 15A | • A11 Radio (IOB) |

## Usage Table (cont'd)

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| 45 | BCM 6 | F45DR | 15A | • K9 Body Control Module<br>• E31L Sunshade Mirror Lamp - Left (DH6)<br>• E31R Sunshade Mirror Lamp - Right (DH6)<br>• E37B Dome/Reading Lamps - 2nd Row (Crew Cab-AZ3)<br>• E37EL Dome/Reading Lamps - Front Overhead Console Left<br>• E37ER Dome/Reading Lamps - Front Overhead Console Right<br>• F14DL (-UK3)<br>• KR76A Retained Accessory Power Relay 1<br>• KR76B Retained Accessory Power Relay 2<br>• S5 Center Console Compartment Lamp Switch (D07)<br>• S12 Dome Lamp Switch<br>• S13D Door Lock Switch - Driver<br>• S13P Door Lock Switch - Passenger<br>• S30 Headlamp Switch<br>• S48A Multifunction Switch - Instrument Panel<br>• S52 Outside Rearview Mirror Switch (DPN)<br>• S63 Roof Beacon Switch (TRW)<br>• S76 Trailer Brake Control Switch (JL1)<br>• S77 Transfer Case Shift Control Switch (NQF) |
| 46 | BCM 7 | F46DR | 15A | • K9 Body Control Module<br>• E37B Dome/Reading Lamps - 2nd Row (Crew Cab-AZ3)<br>• E37EL Dome/Reading Lamps - Front Overhead Console Left<br>• E37ER Dome/Reading Lamps - Front Overhead Console Right<br>• M7 Transmission Shift Lock Control Solenoid Actuator |
| 47 | PASS PWR SEAT | F47DR | 30A | • S64P Seat Adjuster Switch - Passenger (A95/AZF) |

## X51R Fuse Block - Instrument Panel Right Bottom View



4894114

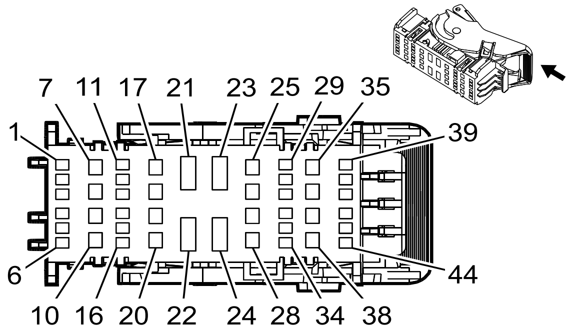
### Usage Table

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| **Relays** | | | | |
| 48 | EMPTY | — | — | • Not Used |
| 49 | EMPTY | — | — | • Not Used |
| 50 | RAP/ACCY | KR76B Retained Accessory Power Relay 2 | — | • F1DR<br>• F2DR |
| 51 | UPFTR 3 | KR161C Configurable Provision Relay 3 | — | • F31DR |
| 52 | UPFTR 4 | KR161D Configurable Provision Relay 4 | — | • F39DR |

## Usage Table (cont'd)

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| **Note: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block.** | | | | |
| — | — | KR112 Cargo Lamp Relay | — | • F10DR |
| — | — | KR113 Child Security Lock Disable Relay | — | • A23LR Door Latch Assembly-Left Rear (Crew Cab)<br>• A23RR Door Latch Assembly-Right Rear (Crew Cab) |
| — | — | KR114 Door Dead Lock Relay | — | • A23D Door Latch Assembly - Driver<br>• A23 LR Door Latch Assembly - Left Rear (Crew Cab)<br>• A23P Door Latch Assembly - Passenger<br>• A23RR Door Latch Assembly - Right Rear (Crew Cab) |

## X51R Fuse Block - Instrument Panel Right X1



3240121

### Connector Part Information

Harness Type: Body
OEM Connector: 13967689
Service Connector: 19329457
Description: 44-Way F 1.5, 2.8, 800 Metri-Pack Series (NA)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19301752 | J-35616-4A (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| II | 19301761 | J-35616-4A (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| III | 19301767 | J-35616-2A (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| IV | 19366953 | J-35616-44 (YE) | J-38125-558 | Not Available | Not Available | Not Available | Not Available |
| V | 19367554 | J-35616-44 (YE) | J-38125-558 | 12110127 | Delphi 19 | F | G |
| VI | 19370817 | J-35616-2A (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |

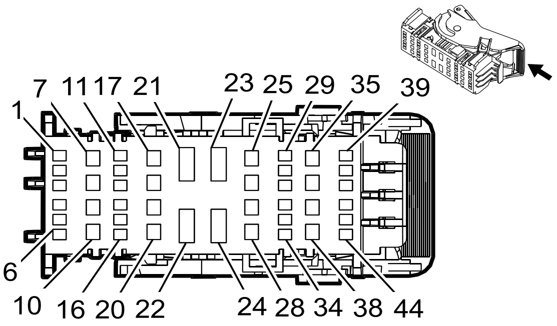
### X51R Fuse Block - Instrument Panel Right X1

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75<br>1.5 | GY<br>GY | 295<br>295 | Door Lock Actuator Lock Control<br>Door Lock Actuator Lock Control | III<br>VI | CREW CAB 43<br>STANDARD CAB 03 |
| 2 | 1.5 | WH/D-BU | 3266 | Child Security Lock Motor Lock Control | VI | — |
| 3 | 0.35 | VT/YE | 3267 | Child Security Lock Relay Control | III | — |
| 4 | 1.5 | GY/L-GN | 3271 | Door Lock Control 2 | VI | — |
| 5 | — | — | — | Not Occupied | — | — |
| 6 | 0.35 | GY/VT | 755 | RAP Relay Coil Control | III | — |
| 7 - 11 | — | — | — | Not Occupied | — | — |
| 12 | 0.75 | RD/D-BU | 4540 | Battery Positive Voltage | III | — |
| 13 | 0.75 | RD/VT | 2640 | Battery Positive Voltage | III | — |
| 14 | — | — | — | Not Occupied | — | — |
| 15 | 0.5 | VT/GY | 709 | Left Park Lamp Control | III | — |

## X51R Fuse Block - Instrument Panel Right X1 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 16 | 0.5 | RD/L-GN | 4440 | Battery Positive Voltage | III | — |
| 17 | — | — | — | Not Occupied | — | — |
| 18 | 1.5 | VT/YE | 143 | Accessory Ignition Voltage | I | — |
| 19 | 2.5 | RD/WH | 1340 | Battery Positive Voltage | I | — |
| 20 | 2.5 | RD/WH | 1340 | Battery Positive Voltage | I | — |
| 21 | 6 | RD/L-GN | 242 | Battery Positive Voltage | IV | — |
| 22 | 4 | RD/VT | 542 | Battery Positive Voltage | V | — |
| 23 | — | — | — | Not Occupied | — | — |
| 24 | 6 | RD/GY | 142 | Battery Positive Voltage | IV | — |
| 25 - 26 | — | — | — | Not Occupied | — | — |
| 27 | 0.75 | RD/VT | 340 | Battery Positive Voltage | II | — |
| 28 | — | — | — | Not Occupied | — | — |
| 29 | 1.5 | D-BU/WH | 195 | Door Lock Control | VI | — |
| 30 | 1.5 | BN | 5910 | Door Double Lock Actuator Lock Control | VI | — |
| 31 - 32 | — | — | — | Not Occupied | — | — |
| 33 | 0.75 | RD/WH | 3440 | Battery Positive Voltage | III | — |
| 34 | 0.75 | RD/L-GN | 5140 | Battery Positive Voltage | III | — |
| 35 - 37 | — | — | — | Not Occupied | — | — |
| 38 | 2.5 | RD/YE | 1440 | Battery Positive Voltage | I | — |
| 39 | — | — | — | Not Occupied | — | — |
| 40 | 0.75 | GY | 5911 | Door Lock Actuator Lock Control 2 | III | — |
| 41 | 0.35 | D-BU/BN | 7547 | Security Lock Relay Control | III | — |
| 42 - 44 | — | — | — | Not Occupied | — | — |

## X51R Fuse Block - Instrument Panel Right X2



3240120

### Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13967690
Service Connector: 19329458
Description: 44-Way F 1.5, 2.8, 800 Metri-Pack Series (GN)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19370817 | J-35616-2A (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| II | 19370817 | J-35616-44 (YE) | J-38125-560 | 12110127 | Delphi 19 | F | G |
| III | 19370817 | J-35616-4A (PU) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |

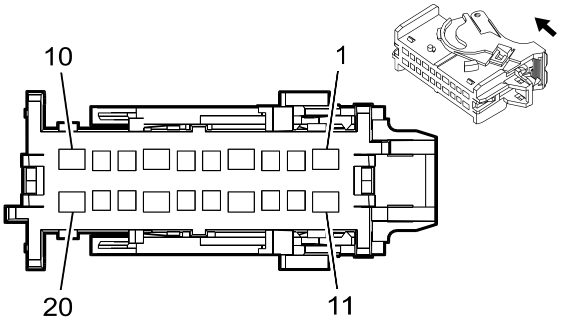
### X51R Fuse Block - Instrument Panel Right X2

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 3 | — | — | — | Not Occupied | — | — |
| 4 | 0.5 | BN/WH | 1429 | Standing Lamp Relay Control | I | — |
| 5 | 0.5 | BK | 1050 | Ground | I | — |
| 6 | — | — | — | Not Occupied | — | — |
| 7 | 0.75 | RD/VT | 4040 | Battery Positive Voltage | III | — |
| 8 | 0.75 | RD/D-BU | 2540 | Battery Positive Voltage | III | — |
| 9 | 0.5 | VT/WH | 239 | Run/Crank Ignition 1 Voltage | III | — |
| 10 | 1.5 | VT/YE | 243 | Accessory Ignition Voltage | III | — |
| 11 | 0.75 | WH/VT | 1430 | Exterior Courtesy Lamp Control | I | — |
| 12 - 13 | — | — | — | Not Occupied | — | — |
| 14 | 0.5 | L-GN/GY | 963 | — | I | — |
| 15 | 0.5 | WH/D-BU | 964 | — | I | — |
| 16 | 0.35 | RD/YE | 3040 | Battery Positive Voltage | I | — |
| 17 | 0.75<br>1 | RD/VT<br>RD/VT | 340<br>340 | Battery Positive Voltage<br>Battery Positive Voltage | III<br>III | IOB<br>TG5 |
| 18 - 21 | — | — | — | Not Occupied | — | — |

## X51R Fuse Block - Instrument Panel Right X2 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 22 | 2.5 | BK | 1050 | Ground | II | — |
| 23 - 27 | — | — | — | Not Occupied | — | — |
| 28 | 2.5 | RD/L-GN | 968 | — | III | — |
| 29 | 0.75 | RD/BN | 2240 | Battery Positive Voltage | I | — |
| 30 - 33 | — | — | — | Not Occupied | — | — |
| 34 | 0.35 | RD/D-BU | 3240 | Battery Positive Voltage | I | — |
| 35 | 2.5 | RD/GY | 4140 | Battery Positive Voltage | III | — |
| 36 | — | — | — | Not Occupied | — | — |
| 37 | 1.5 | RD/YE | 2340 | Battery Positive Voltage | III | — |
| 38 | 2.5 | YE/BN | 967 | — | III | — |
| 39 - 41 | — | — | — | Not Occupied | — | — |
| 42 | 0.75 | RD/VT | 340 | Battery Positive Voltage | I | — |
| 43 - 44 | — | — | — | Not Occupied | — | — |

# X51R Fuse Block - Instrument Panel Right X3



3243003

## Connector Part Information

Harness Type: Right A-Pillar
OEM Connector: 15547107
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.5, 2.8 OCS Series (GY)

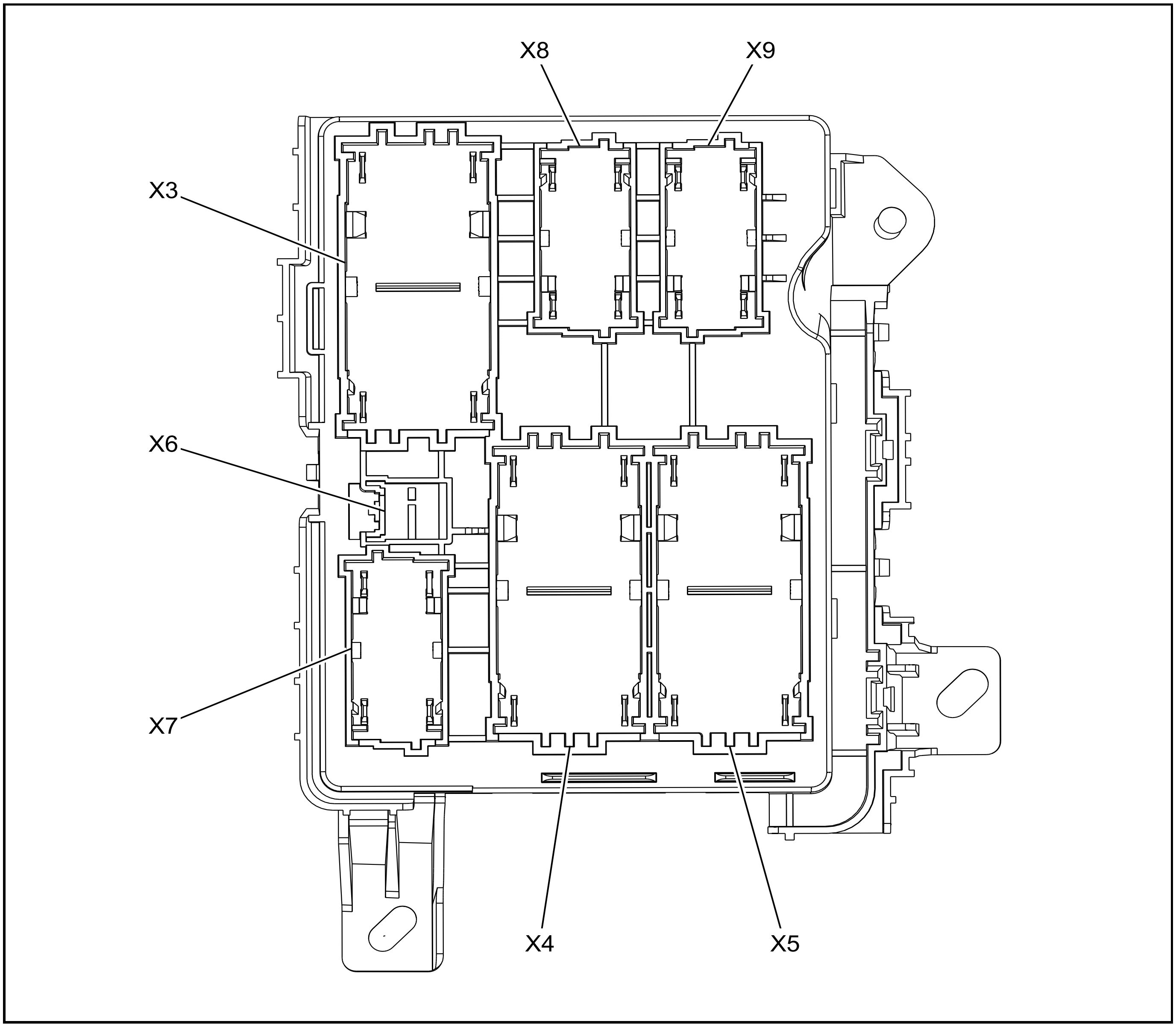
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

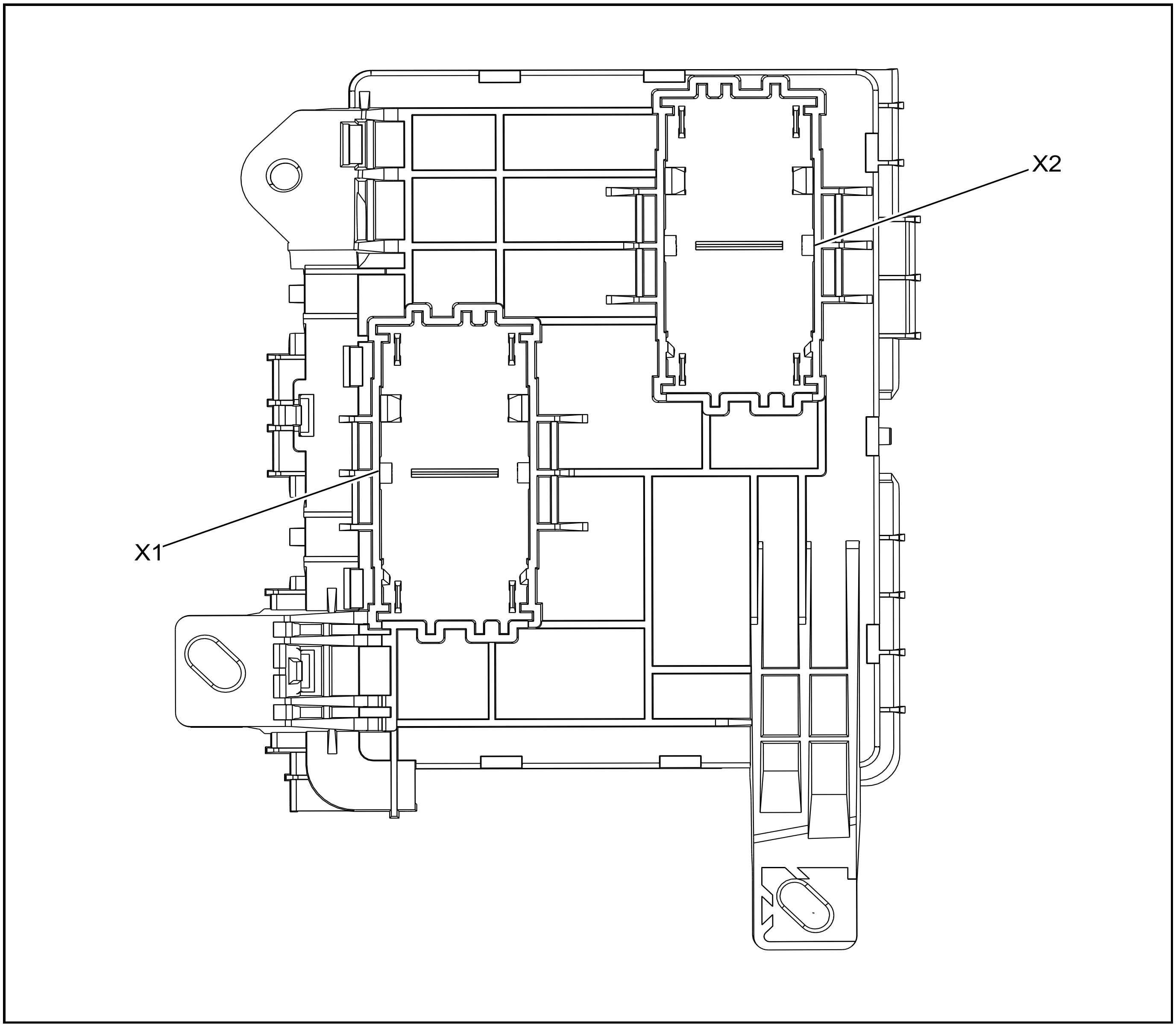
## X51R Fuse Block - Instrument Panel Right X3

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | RD/L-GN | 3140 | Battery Positive Voltage | II | — |
| 2 - 7 | — | — | — | Not Occupied | — | — |
| 8 | 0.5 | VT/GY | 709 | Left Park Lamp Control | I | — |
| 9 | — | — | — | Not Occupied | — | — |
| 10 | 0.5<br>2.5 | BK<br>BK | 1050<br>1050 | Ground<br>Ground | II<br>II | U01<br>-U01 |
| 11 - 20 | — | — | — | Not Occupied | — | — |

## X61A Junction Block - Instrument Panel Top View

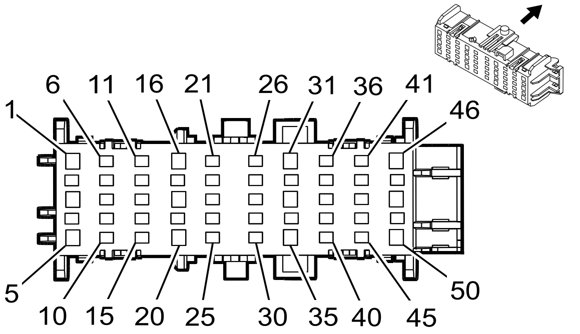

X8
X9
X3
X6
X7
X4
X5
4894115

## X61A Junction Block - Instrument Panel Bottom View



4894116

## X61A Junction Block - Instrument Panel X1



3240131

### Connector Part Information

- Harness Type: Body
- OEM Connector: 33114819
- Service Connector: 19301798
- Description: 50-Way F 1.5, 2.8 OCS Series (BK)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19370817 | J-35616-2A (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| II | 19370817 | J-35616-4A (PU) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |

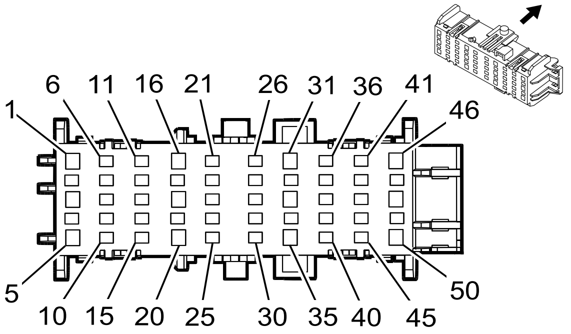
### X61A Junction Block - Instrument Panel X1

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 12 | — | — | — | Not Occupied | — | — |
| 13 | 2 | RD/L-GN | 968 | — | I | — |
| 14 - 15 | — | — | — | Not Occupied | — | — |
| 16 | 2.5 | D-BU | 965 | — | II | — |
| 17 | 0.75 | WH/VT | 1430 | Exterior Courtesy Lamp Control | I | — |
| 18 | — | — | — | Not Occupied | — | — |
| 19 | 0.5 | D-BU/YE | 6105 | High Speed GMLAN Serial Data (+) 2 | I | — |
| 20 | 0.5 | WH | 6106 | High Speed GMLAN Serial Data (-) 2 | II | — |
| 21 | 0.5 | RD/WH | 961 | — | I | — |
| 22 | 0.35 | VT | 185 | Low Washer Fluid Indicator Control | I | — |
| 23 | 0.35 | BN/YE | 780 | Driver Door Lock Switch Lock Signal | I | — |
| 24 | 0.5 | BN | 7634 | Integrated Trailer Brake Controller Redundant Manual Apply Signal | I | — |
| 25 | 0.35 | GY | 5697 | Child Lockout Indicator Control | I | — |
| 26 | 0.5 | D-BU/RD | 7632 | Integrated Trailer Brake Controller Switch 5V Reference | I | — |
| 27 | 0.5 | BK/BN | 7631 | Integrated Trailer Brake Controller Switch Low Reference | I | — |
| 28 | 0.35 | BN/WH | 781 | Driver Door Lock Switch Unlock Signal | I | — |

## X61A Junction Block - Instrument Panel X1 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 29 | 0.5 | YE | 7635 | Integrated Trailer Brake Controller Manual Apply Signal | I | — |
| 30 | 0.5 | VT/WH | 239 | Run/Crank Ignition 1 Voltage | I | — |
| 31 - 32 | — | — | — | Not Occupied | — | — |
| 33 | 0.35 | VT/BN | 300 | Run Ignition 3 Voltage | II | — |
| 34 | 0.5 | YE/WH | 962 | — | I | — |
| 35 | 0.5 | VT/L-GN | 39 | Run/Crank Ignition 1 Voltage | II | — |
| 36 | 0.5 | VT/WH | 239 | Run/Crank Ignition 1 Voltage | I | — |
| 37 - 38 | — | — | — | Not Occupied | — | — |
| 39 | 1 | D-BU/VT | 1134 | Park Brake Switch Signal | I | — |
| 40 | — | — | — | Not Occupied | — | — |
| 41 | 0.5 | L-GN/BK | 7633 | Integrated Trailer Brake Controller User Gain Signal | I | — |
| 42 - 43 | — | — | — | Not Occupied | — | — |
| 44 | 0.5 | WH/D-BU | 3691 | Trailer Brake Apply Signal | I | — |
| 45 | — | — | — | Not Occupied | — | — |
| 46 | 0.5 | VT/WH | 1939 | Run/Crank Ignition 1 Voltage | II | — |
| 47 | 0.5 | WH | 6816 | Indicator Dimming Control | I | — |
| 48 | — | — | — | Not Occupied | — | — |
| 49 | 0.35 | YE/WH | 816 | Brake Transmission Shift Interlock Solenoid Control | I | — |
| 50 | 2.5 | BK | 2550 | Ground | II | — |

## X61A Junction Block - Instrument Panel X2



3240130

### Connector Part Information

Harness Type: Body

OEM Connector: 33115109

Service Connector: 19329464

Description: 50-Way F 1.5, 2.8 OCS Series (GY)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19370817 | J-35616-2A (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| II | 19370817 | J-35616-35 (VT) | J-38125-560 | 1326030-8 | Lear 17 | B | F |
| III | 19370817 | J-35616-4A (PU) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |

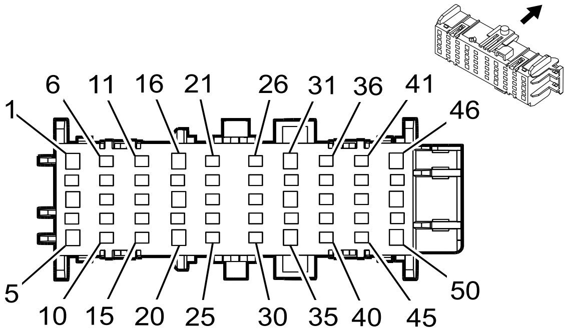
### X61A Junction Block - Instrument Panel X2

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 2 | — | — | — | Not Occupied | — | — |
| 3 | 2 | RD/GY | 1342 | Battery Positive Voltage | III | — |
| 4 | 0.35 | D-BU | 2307 | Passenger Air Bag On Indicator Control | I | — |
| 5 | — | — | — | Not Occupied | — | — |
| 6 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | — |
| 7 | 0.5 | D-BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | — |
| 8 - 17 | — | — | — | Not Occupied | — | — |
| 18 | 4 | BK | 550 | Ground | II | — |
| 19 | 0.35 | VT/WH | 5234 | Passenger Seat Belt Indicator Control | I | — |
| 20 - 22 | — | — | — | Not Occupied | — | — |
| 23 | 0.5<br>0.75 | WH/BN<br>WH/BN | 6815<br>6815 | Inadvertent Power Control<br>Inadvertent Power Control | I<br>I | DH6<br>-DH6 |
| 24 | 0.35 | L-GN | 2308 | Passenger Air Bag Off Indicator Control | I | — |
| 25 | — | — | — | Not Occupied | — | — |
| 26 | 0.35 | D-BU/GY | 7473 | Incremental Encoder Impulse Signal | I | — |
| 27 | 0.35 | VT | 7476 | Incremental Encoder Sensor Low Reference | I | — |
| 28 | — | — | — | Not Occupied | — | — |

## X61A Junction Block - Instrument Panel X2 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 29 | 0.75 | GY | 157 | Interior Lamp Control | I | — |
| 30 | 0.35 | GY | 156 | Courtesy Lamp Switch Signal | I | — |
| 31 | 1 | YE/VT | 1553 | Transfer Case Motor Counter Clockwise Control | III | — |
| 32 | 0.35 | YE | 7474 | Incremental Encoder Direction Signal | I | — |
| 33 | 0.75 | VT/GY | 1054 | Stop Lamp Control | III | — |
| 34 | — | — | — | Not Occupied | — | — |
| 35 | 2.5 | RD/L-GN | 242 | Battery Positive Voltage | III | — |
| 36 | 0.35 | WH/L-GN | 7475 | Incremental Encoder Sensor 8V Reference | I | — |
| 37 | — | — | — | Not Occupied | — | — |
| 38 | 0.35 | VT/YE | 5985 | Accessory Wakeup Serial Data | I | — |
| 39 - 43 | — | — | — | Not Occupied | — | — |
| 44 | 0.5 | WH/D-BU | 3691 | Trailer Brake Apply Signal | I | — |
| 45 | — | — | — | Not Occupied | — | — |
| 46 | 1 | YE/GY | 1552 | Transfer Case Motor Clockwise Control | III | — |
| 47 | 0.5 | L-GN/GY | 817 | Vehicle Speed Signal | I | — |
| 48 | 2.5 | D-BU | 47 | Trailer Auxiliary Control | III | — |
| 49 | — | — | — | Not Occupied | — | — |
| 50 | 0.35 | VT/YE | 43 | Accessory Ignition Voltage | III | — |

## X61A Junction Block - Instrument Panel X3



3240132

### Connector Part Information

Harness Type: Headliner
OEM Connector: 33115112
Service Connector: 19329467
Description: 50-Way F 1.5, 2.8 OCS Series (BU)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19370817 | J-35616-14 (GN) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| II | 19370817 | J-35616-2A (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| III | 19370817 | J-35616-35 (VT) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |

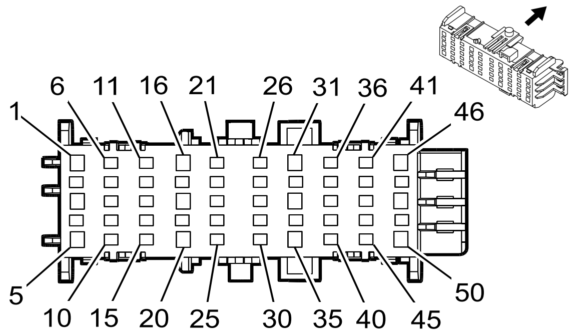
### X61A Junction Block - Instrument Panel X3

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 2 | — | — | — | Not Occupied | — | — |
| 3 | 0.5 | RD/L-GN | 3140 | Battery Positive Voltage | III | — |
| 4 | 0.35 | D-BU | 2307 | Passenger Air Bag On Indicator Control | II | — |
| 5 - 6 | — | — | — | Not Occupied | — | — |
| 7 | 0.75 | WH/VT | 1430 | Exterior Courtesy Lamp Control | I | — |
| 8 | 0.35 | YE/WH | 1690 | Automatic Day/Night Mirror Signal | I | — |
| 9 | 0.35 | BK/YE | 1691 | Automatic Day/Night Mirror Low Reference | I | — |
| 10 - 12 | — | — | — | Not Occupied | — | — |
| 13 | 0.35 | L-GN/RD | 24 | Backup Lamp Control | I | — |
| 14 - 16 | — | — | — | Not Occupied | — | — |
| 17 | 0.35 | L-GN/BK | 2515 | Keypad Control | I | — |
| 18 | — | — | — | Not Occupied | — | — |
| 19 | 0.35 | VT/WH | 5234 | Passenger Seat Belt Indicator Control | II | — |
| 20 | — | — | — | Not Occupied | — | — |
| 21 | 0.35 | L-GN/D-BU | 2514 | Keypad Signal | I | — |
| 22 | 0.35 | YE/BN | 2516 | Keypad Green LED Control | I | — |
| 23 | — | — | — | Not Occupied | — | — |

## X61A Junction Block - Instrument Panel X3 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 24 | 0.35 | L-GN/RD | 2308 | Passenger Air Bag Off Indicator Control | II | — |
| 25 | 0.5<br>0.5 | WH/BN<br>WH/BN | 6815<br>6815 | Inadvertent Power Control<br>Inadvertent Power Control | II<br>I | DH6<br>-DH6 |
| 26 | 0.35 | WH | 6192 | Power Sliding Window Switch Close Signal | II | — |
| 27 | 0.5<br>0.5 | YE<br>YE | 6817<br>6817 | LED Backlight Dimming Control<br>LED Backlight Dimming Control | I<br>II | AZ3<br>-AZ3 |
| 28 | 0.35 | GY/D-BU | 156 | Courtesy Lamp Switch Signal | II | — |
| 29 | 0.5<br>0.5 | GY<br>GY | 157<br>157 | Interior Lamp Control<br>Interior Lamp Control | II<br>I | AZ3<br>-AZ3 |
| 30 - 31 | — | — | — | Not Occupied | — | — |
| 32 | 0.35 | YE/VT | 6191 | Power Sliding Window Switch Open Signal | II | — |
| 33 - 34 | — | — | — | Not Occupied | — | — |
| 35 | 0.5 | VT/GY | 1054 | Stop Lamp Control | III | — |
| 36 | 0.35 | BN/WH | 2517 | Keypad Red LED Control | I | — |
| 37 - 40 | — | — | — | Not Occupied | — | — |
| 41 | 0.35 | GY/L-GN | 328 | Interior Lamp Defeat Switch Signal | II | — |
| 42 | 0.35<br>0.35 | VT/L-GN<br>VT/L-GN | 7558<br>7558 | LED Ambient Lighting Control 2<br>LED Ambient Lighting Control 2 | II<br>I | —<br>— |
| 43 - 44 | — | — | — | Not Occupied | — | — |
| 45 | 0.35 | GY/WH | 3153 | Lane Departure Warning Disable Switch Signal | I | — |
| 46 | 2.5 | BK | 1050 | Ground | III | — |
| 47 | 0.35 | L-GN | 5060 | Low Speed GMLAN Serial Data | I | — |
| 48 | — | — | — | Not Occupied | — | — |
| 49 | 0.35 | WH | 3152 | Lane Departure Warning Indicator Control | I | — |
| 50 | — | — | — | Not Occupied | — | — |

## X61A Junction Block - Instrument Panel X4



3240129

### Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33115111
Service Connector: 19329466
Description: 50-Way F 1.5, 2.8 OCS Series (GN)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19370817 | J-35616-2A (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| II | 19370817 | J-35616-4A (PU) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |

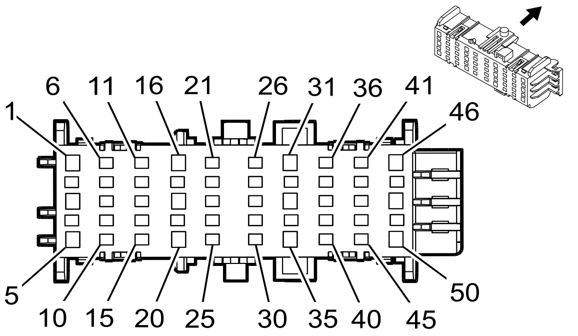
### X61A Junction Block - Instrument Panel X4

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | YE/BN | 967 | — | II | — |
| 2 | 0.35 | YE/VT | 2516 | Keypad Green LED Control | I | — |
| 3 | 0.35 | BK/L-GN | 552 | Sensor Low Reference | II | — |
| 4 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | — |
| 5 | 0.5 | D-BU | 2500 | High Speed GMLAN Serial Data (+) 1 | II | — |
| 6 | 0.5 | YE | 6817 | LED Backlight Dimming Control | I | — |
| 7 | 0.35 | L-GN/WH | 2514 | Keypad Signal | I | — |
| 8 | 0.35 | GY/RD | 598 | 5V Reference | I | — |
| 9 | 0.35 | WH/L-GN | 526 | Stop Lamp Switch Signal | I | — |
| 10 | 0.35 | D-BU/YE | 1693 | Four Wheel Drive Switch Signal | I | — |
| 11 | — | — | — | Not Occupied | — | — |
| 12 | 2 | RD/L-GN | 968 | — | I | — |
| 13 | — | — | — | Not Occupied | — | — |
| 14 | 0.35 | BN | 1560 | Neutral Indicator Control | I | — |
| 15 | 0.35 | GY/RD | 6029 | Four Wheel Drive Mode Switch 5V Reference | I | — |
| 16 | 2.5 | BK | 1050 | Ground | II | — |
| 17 | — | — | — | Not Occupied | — | — |
| 18 | 2.5 | GY/BK | 966 | — | II | — |
| 19 | 0.35 | L-GN/BK | 2515 | Keypad Control | I | — |

## X61A Junction Block - Instrument Panel X4 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 20 | 2.5 | RD/L-GN | 968 | — | II | — |
| 21 | 0.5 | VT/L-GN | 7558 | LED Ambient Lighting Control 2 | I | — |
| 22 | 0.35 | BN/WH | 2517 | Keypad Red LED Control | I | — |
| 23 | 0.35 | BN/BK | 1566 | 4 HI Indicator Control | I | — |
| 24 | 0.35 | VT/WH | 1565 | 4 LO Indicator Control | I | — |
| 25 | 0.35 | VT/L-GN | 1739 | Run/Crank Ignition 1 Voltage | I | — |
| 26 | — | — | — | Not Occupied | — | — |
| 27 | 0.35 | GY/L-GN | 328 | Interior Lamp Defeat Switch Signal | I | — |
| 28 - 30 | — | — | — | Not Occupied | — | — |
| 31 | 1.5 | RD/YE | 2340 | Battery Positive Voltage | II | — |
| 32 | 0.5 | BK/WH | 1851 | Signal Ground | I | — |
| 33 | 0.35<br>0.5 | BK/WH<br>BK/WH | 1851<br>1851 | Signal Ground<br>Signal Ground | II<br>II | —<br>— |
| 34 | — | — | — | Not Occupied | — | — |
| 35 | 2.5 | BK/WH | 1851 | Signal Ground | II | — |
| 36 - 37 | — | — | — | Not Occupied | — | — |
| 38 | 0.5 | BK/WH | 1851 | Signal Ground | I | — |
| 39 | 0.35 | BK/WH | 1851 | Signal Ground | I | — |
| 40 | 0.35 | L-GN/BK | 1563 | 2 HI Indicator Control | I | — |
| 41 - 43 | — | — | — | Not Occupied | — | — |
| 44 | 0.75 | BK | 2550 | Ground | I | — |
| 45 | 0.35 | BK | 2550 | Ground | I | — |
| 46 | 0.75 | BK | 2550 | Ground | II | — |
| 47 | 0.35 | BK | 2550 | Ground | I | — |
| 48 | 0.75 | BK | 2550 | Ground | II | — |
| 49 | — | — | — | Not Occupied | — | — |
| 50 | 0.75 | BK | 2550 | Ground | II | — |

# X61A Junction Block - Instrument Panel X5



3240128

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33115110
Service Connector: 19329465
Description: 50-Way F 1.5, 2.8 OCS Series (NA)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300649 | J-35616-4A (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| II | 19301761 | J-35616-4A (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| III | 19301767 | J-35616-2A (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |

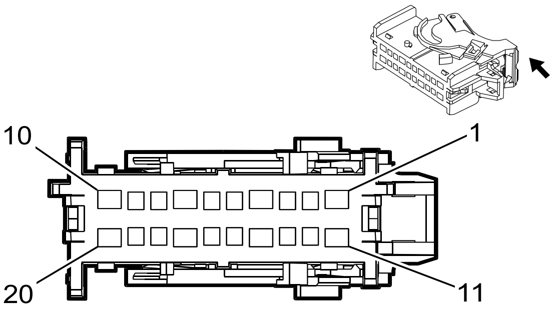
## X61A Junction Block - Instrument Panel X5

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 2 | — | — | — | Not Occupied | — | — |
| 3 | 0.5 | D-BU/YE | 6105 | High Speed GMLAN Serial Data (+) 2 | I | — |
| 4 | 0.75 | WH/VT | 1430 | Exterior Courtesy Lamp Control | III | — |
| 5 | — | — | — | Not Occupied | — | — |
| 6 | 0.35 | GY | 5697 | Child Lockout Indicator Control | III | — |
| 7 | 0.5 | BN | 7634 | Integrated Trailer Brake Controller Redundant Manual Apply Signal | III | — |
| 8 | 0.35 | BN/YE | 780 | Driver Door Lock Switch Lock Signal | III | — |
| 9 | 0.35 | VT | 185 | Low Washer Fluid Indicator Control | III | — |
| 10 | 0.5 | RD/WH | 961 | — | III | — |
| 11 | 0.5 | VT/WH | 239 | Run/Crank Ignition 1 Voltage | III | — |
| 12 | 0.5 | YE | 7635 | Integrated Trailer Brake Controller Manual Apply Signal | III | — |
| 13 | 0.35 | BN/WH | 781 | Driver Door Lock Switch Unlock Signal | III | — |
| 14 | 0.5 | BK/BN | 7631 | Integrated Trailer Brake Controller Switch Low Reference | III | — |
| 15 | 0.5 | D-BU/RD | 7632 | Integrated Trailer Brake Controller Switch 5V Reference | III | — |
| 16 | 0.5 | VT/L-GN | 39 | Run/Crank Ignition 1 Voltage | I | — |

## X61A Junction Block - Instrument Panel X5 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 17 | 0.5 | YE/WH | 962 | — | III | — |
| 18 | 0.35<br>0.35 | VT/BN<br>VT/BN | 300<br>300 | Run Ignition 3 Voltage<br>Run Ignition 3 Voltage | I<br>II | KI4+D07<br>KI4+D09 |
| 19 | 0.5 | WH | 6106 | High Speed GMLAN Serial Data (-) 2 | III | — |
| 20 - 21 | — | — | — | Not Occupied | — | — |
| 22 | 0.5 | D-BU/VT | 1134 | Park Brake Switch Signal | III | — |
| 23 - 24 | — | — | — | Not Occupied | — | — |
| 25 | 0.5 | VT/WH | 239 | Run/Crank Ignition 1 Voltage | III | — |
| 26 | — | — | — | Not Occupied | — | — |
| 27 | 0.5 | WH/D-BU | 3691 | Trailer Brake Apply Signal | III | — |
| 28 - 29 | — | — | — | Not Occupied | — | — |
| 30 | 0.5 | L-GN/BK | 7633 | Integrated Trailer Brake Controller User Gain Signal | III | — |
| 31 | 0.35 | BK | 2550 | Ground | I | — |
| 32 | 0.35 | YE/WH | 816 | Brake Transmission Shift Interlock Solenoid Control | III | — |
| 33 | — | — | — | Not Occupied | — | — |
| 34 | 0.5 | WH | 6816 | Indicator Dimming Control | III | — |
| 35 - 36 | — | — | — | Not Occupied | — | — |
| 37 | 0.35 | WH | 6816 | Indicator Dimming Control | III | — |
| 38 | 0.35 | WH | 6816 | Indicator Dimming Control | III | — |
| 39 - 50 | — | — | — | Not Occupied | — | — |

# X61A Junction Block - Instrument Panel X8



3240104

## Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 15547106
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.5, 2.8 OCS Series (BK)

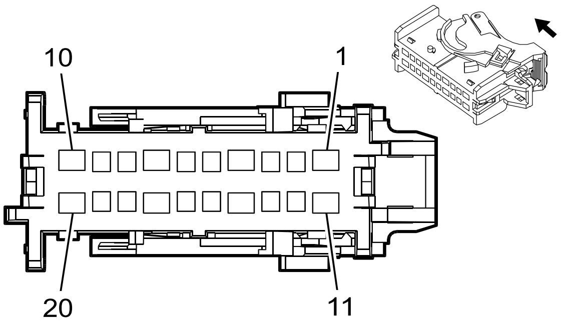
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X61A Junction Block - Instrument Panel X8

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 7 | — | — | — | Not Occupied | — | — |
| 8 | 0.5 | WH/L-GN | 526 | Stop Lamp Switch Signal | I | — |
| 9 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | — |
| 10 | 0.5 | D-BU | 2500 | High Speed GMLAN Serial Data (+) 1 | II | — |
| 11 | — | — | — | Not Occupied | — | — |
| 12 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | — |
| 13 | 0.5 | D-BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | — |
| 14 | 0.5 | WH/RD | 6207 | Memory Sensor High Reference | II | — |
| 15 | 0.5 | D-BU | 5952 | Adjustable Pedal Position Sensor Brake Signal | I | — |
| 16 | 1.5 | YE | 5129 | Adjustable Pedal Actuator Rearward Control | I | — |
| 17 | 0.5 | BK/GY | 6206 | Memory Sensor Low Reference | II | — |
| 18 | 1.5 | L-GN/VT | 5130 | Adjustable Pedal Actuator Forward Control | I | — |
| 19 | 0.5 | BK/L-GN | 552 | Sensor Low Reference | I | — |
| 20 | 0.5 | GY/RD | 598 | 5V Reference | II | — |

# X61A Junction Block - Instrument Panel X9



3243003

## Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 15547107
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.5, 2.8 OCS Series (GY)

## Terminal Part Information

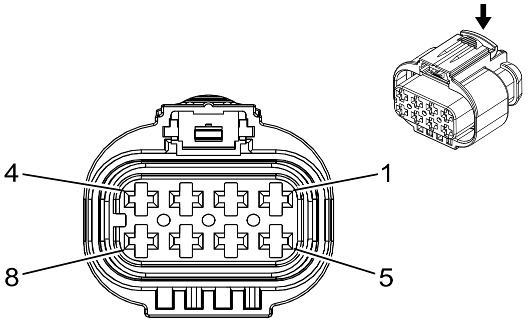
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X61A Junction Block - Instrument Panel X9

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | YE/BN | 1569 | Transfer Case Lock Solenoid Control | II | — |
| 2 | 0.35 | D-BU/YE | 1693 | Four Wheel Drive Switch Signal | I | — |
| 3 | 0.35 | GY/RD | 6029 | Four Wheel Drive Mode Switch 5V Reference | I | — |
| 4 | 0.35 | BN/BK | 1566 | 4 HI Indicator Control | II | — |
| 5 | 0.35 | VT/WH | 1565 | 4 LO Indicator Control | I | — |
| 6 | 0.35 | VT/L-GN | 1739 | Run/Crank Ignition 1 Voltage | I | — |
| 7 | 0.35 | VT/YE | 5985 | Accessory Wakeup Serial Data | II | — |
| 8 | 0.35 | L-GN/BK | 1563 | 2 HI Indicator Control | I | — |
| 9 | 0.35 | GY/L-GN | 1561 | AWD Indicator Control | I | — |
| 10 | 0.5 | GY/BK | 1570 | Front Axle Actuator Control | II | — |
| 11 | 3 | RD/GY | 1342 | Battery Positive Voltage | II | — |
| 12 | 0.35 | BN | 1560 | Neutral Indicator Control | I | — |
| 13 | 0.35 | VT | 7476 | Incremental Encoder Sensor Low Reference | I | — |
| 14 | 3 | BK | 550 | Ground | II | — |
| 15 | 0.35 | D-BU/GY | 7473 | Incremental Encoder Impulse Signal | I | — |
| 16 | 0.35 | YE | 7474 | Incremental Encoder Direction Signal | I | — |
| 17 | 4 | YE/VT | 1553 | Transfer Case Motor Counter Clockwise Control | II | — |
| 18 | 0.35 | WH/L-GN | 7475 | Incremental Encoder Sensor 8V Reference | I | — |
| 19 | 0.5 | YE/WH | 1695 | Four Wheel Drive Wheel Lock Indicator Control | I | — |
| 20 | 4 | YE/GY | 1552 | Transfer Case Motor Clockwise Control | II | — |

# Component Connector End Views

## A6C Fuel Pump and Level Sensor Assembly - Primary (N2L)



3749582

### Connector Part Information

Harness Type: Chassis Rear Right
OEM Connector: 4088330C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series, Sealed (GY)

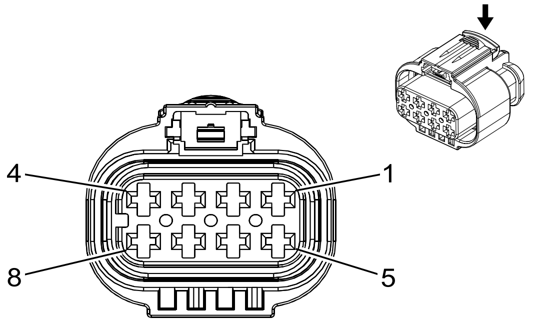
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### A6C Fuel Pump and Level Sensor Assembly - Primary (N2L)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | GY | 120 | Fuel Pump Control | I | — |
| 2 | 1.5 | YE/GY | 4137 | Fuel Pump Supply Voltage Phase 2 | I | — |
| 3 | 1.5 | WH/BN | 4138 | Fuel Pump Supply Voltage Phase 3 | I | — |
| 4 | — | — | — | Not Occupied | — | — |
| 5 | 0.5 | BU/VT | 1589 | Primary Fuel Level Sensor Signal | I | — |
| 6 | 0.5 | BK/GN | 6281 | Fuel Level Sensor Low Reference | I | — |
| 7 - 8 | — | — | — | Not Occupied | — | — |

# A6C Fuel Pump and Level Sensor Assembly - Primary (NSQ/NVK)



3749582

## Connector Part Information

Harness Type: Chassis
OEM Connector: 4088330C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series, Sealed (GY)

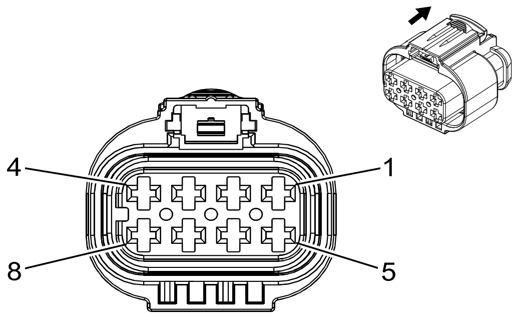
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## A6C Fuel Pump and Level Sensor Assembly - Primary (NSQ/NVK)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | GY | 120 | Fuel Pump Control | I | — |
| 2 | 1.5 | YE/GY | 4137 | Fuel Pump Supply Voltage Phase 2 | I | — |
| 3 | 1.5 | WH/BN | 4138 | Fuel Pump Supply Voltage Phase 3 | I | — |
| 4 | — | — | — | Not Occupied | — | — |
| 5 | 0.5 | BU/VT | 1589 | Primary Fuel Level Sensor Signal | I | — |
| 6 | 0.5 | BK/GN | 6281 | Fuel Level Sensor Low Reference | I | — |
| 7 - 8 | — | — | — | Not Occupied | — | — |

# A6D Fuel Pump and Level Sensor Assembly - Secondary (NSQ)



3749583

## Connector Part Information

Harness Type: Chassis Rear Right
OEM Connector: 4088872C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series, Sealed (L-BU)

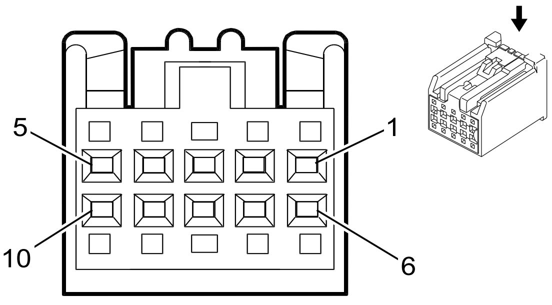
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## A6D Fuel Pump and Level Sensor Assembly - Secondary (NSQ)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 2 | — | — | — | Not Occupied | — | — |
| 3 | 1.5 | GY | 120 | Fuel Pump Control | I | — |
| 4 | 1.5 | BK | 2150 | Ground | I | — |
| 5 | 0.5 | BU/WH | 1937 | Secondary Fuel Level Sensor Signal | I | — |
| 6 | 0.5 | BK/GN | 6281 | Fuel Level Sensor Low Reference | I | — |
| 7 - 8 | — | — | — | Not Occupied | — | — |

# A10 Inside Rearview Mirror (DD8/UE1)



2180211

### Connector Part Information

Harness Type: Headliner
OEM Connector: 13815336
Service Connector: 13577390
Description: 10-Way F 0.64 Kaizen Series (BK)

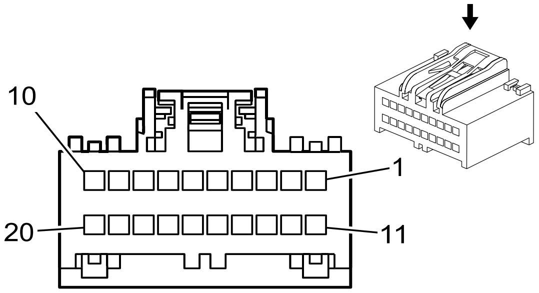
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |
| II | 13575867 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |

## A10 Inside Rearview Mirror (DD8/UE1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | L-GN/RD | 24 | Backup Lamp Control | II | — |
| 2 | 0.35 | VT/L-GN | 1739 | Run/Crank Ignition 1 Voltage | II | — |
| 3 | 0.35 | L-GN/D-BU | 2514 | Keypad Signal | II | — |
| 4 | 0.35 | L-GN/BK | 2515 | Keypad Control | II | — |
| 5 | 0.5 | BK | 1050 | Ground | I | — |
| 6 | 0.35 | YE/BN | 2516 | Keypad Green LED Control | II | — |
| 7 | 0.35 | BN/WH | 2517 | Keypad Red LED Control | II | — |
| 8 | 0.35 | BK/YE | 1691 | Automatic Day/Night Mirror Low Reference | II | — |
| 9 | 0.35 | YE/WH | 1690 | Automatic Day/Night Mirror Signal | II | — |
| 10 | — | — | — | Not Occupied | — | — |

# A11 Radio X1 (IO3/IO5/IO6)



1715228

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13859758
Service Connector: 15126710
Description: 20-Way F USCAR 64 Series (GY)

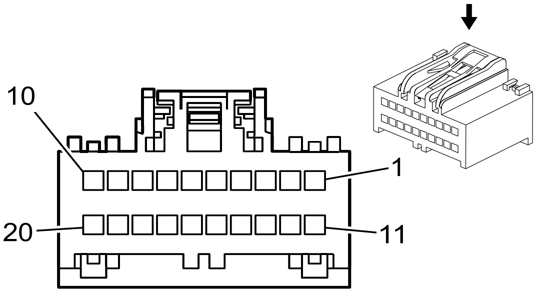
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |
| II | 13575867 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |

## A11 Radio X1 (IO3/IO5/IO6)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 3 | — | — | — | Not Occupied | — | — |
| 4 | 0.35 | WH/D-BU | 6973 | Camera Signal 2 | II | — |
| 5 | 0.35 | GY/YE | 6972 | Camera Signal 2 + | II | — |
| 6 | 0.5 | Bare | 5842 | Auxiliary Audio Screen 2 | I | — |
| 7 | 0.35 | D-BU | 2060 | Auxiliary Detection Signal | II | — |
| 8 | 0.35 | VT | 5843 | Auxiliary Audio Common Signal | II | — |
| 9 | 0.35 | GY | 5839 | Left Auxiliary Audio Signal 2 | II | — |
| 10 | 0.35 | L-GN | 5841 | Right Auxiliary Audio Signal 2 | II | — |
| 11 - 12 | — | — | — | Not Occupied | — | — |
| 13 | 0.5 | L-GN/D-BU | 7532 | Local Interconnect Network Serial Data Bus 10 | I | — |
| 14 | 0.5 | GY/L-GN | 1102 | Low Speed GMLAN Serial Data #2 | I | — |
| 15 - 18 | — | — | — | Not Occupied | — | — |
| 19 | 0.35 | BK/YE | 659 | Cellular Telephone Voice Low Reference | II | — |
| 20 | 0.35 | YE | 658 | Cellular Telephone Voice Signal | II | — |

# A11 Radio X1 (IOB)



1715228

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13859758
Service Connector: 15126710
Description: 20-Way F USCAR 64 Series (GY)

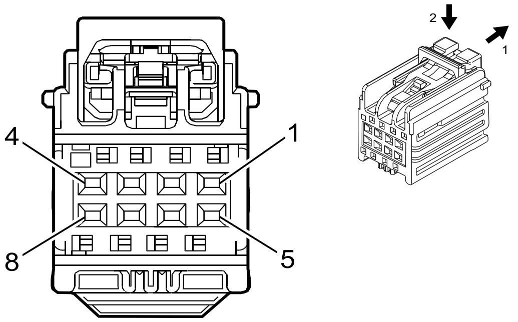
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |
| II | 13575867 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |

## A11 Radio X1 (IOB)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 2550 | Ground | I | — |
| 2 | 0.35 | GY/BN | 9003 | — | II | — |
| 3 | 0.35 | BN | 9004 | — | II | — |
| 4 | 0.5 | GY/L-GN | 1102 | Low Speed GMLAN Serial Data #2 | I | — |
| 5 | — | — | — | Not Occupied | — | — |
| 6 | 0.35 | BK/GY | 5152 | Voice Recognition Audio Low Reference | II | — |
| 7 | 0.35 | GY/YE | 5149 | Voice Recognition Audio Signal | II | — |
| 8 | 0.35 | BN/L-GN | 3983 | Display Radio Bank Switch Signal 2 | II | — |
| 9 | 0.35 | BK/YE | 659 | Cellular Telephone Voice Low Reference | II | — |
| 10 | 0.35 | YE | 658 | Cellular Telephone Voice Signal | II | — |
| 11 | 0.75 | RD/VT | 340 | Battery Positive Voltage | I | — |
| 12 - 13 | — | — | — | Not Occupied | — | — |
| 14 | 0.35 | WH/D-BU | 6973 | Camera Signal 2 | II | — |
| 15 | 0.35 | GY/YE | 6972 | Camera Signal 2 + | II | — |
| 16 | 0.5 | Bare | 5842 | Auxiliary Audio Screen 2 | I | — |
| 17 | 0.35 | D-BU | 2060 | Auxiliary Detection Signal | II | — |
| 18 | 0.35 | VT | 5843 | Auxiliary Audio Common Signal | II | — |
| 19 | 0.35 | GY | 5839 | Left Auxiliary Audio Signal 2 | II | — |
| 20 | 0.35 | L-GN | 5841 | Right Auxiliary Audio Signal 2 | II | — |

# A11 Radio X2 (IO3/IO5/IO6)



4280711

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33183559
Service Connector: 19355209
Description: 8-Way F YESC Kaizen Series (GY)

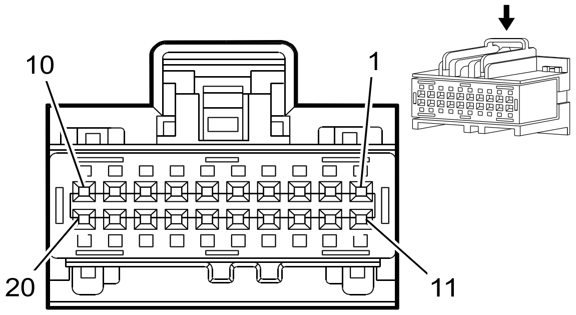
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## A11 Radio X2 (IO3/IO5/IO6)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/L-GN | 3997 | MOST Serial Data (-) | I | — |
| 2 | 0.5 | GY/VT | 3998 | MOST Serial Data (+) | I | — |
| 3 | 0.5 | WH/L-GN | 3997 | MOST Serial Data (-) | I | — |
| 4 | 0.5 | GY/VT | 3998 | MOST Serial Data (+) | I | — |
| 5 - 6 | — | — | — | Not Occupied | — | — |
| 7 | 0.35 | WH/VT | 3999 | MOST Control | I | — |
| 8 | — | — | — | Not Occupied | — | — |

# A11 Radio X2 (IOB)



1664552

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13950640
Service Connector: 15126709
Description: 20-Way F USCAR 64 Series (BN)

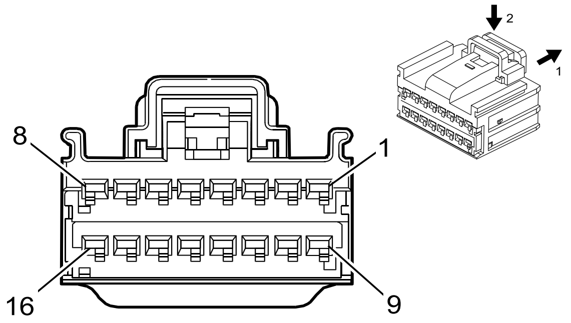
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |
| II | 13575867 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |

## A11 Radio X2 (IOB)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 2 | — | — | — | Not Occupied | — | — |
| 3 | 0.35 | GY | 314 | Radio On Signal | II | — |
| 4 | 0.35 | VT/GY | 1381 | LCD Dimming Signal | II | — |
| 5 | 0.35 | GY/D-BU | 3989 | Display Radio Bank Switch Dim Signal | II | — |
| 6 | 0.35 | BN/L-GN | 4502 | Video Display Request Signal | II | — |
| 7 | 0.35 | BN/L-GN | 3364 | Navigation Display Reset Signal | II | — |
| 8 | 0.35 | D-BU | 4315 | Radio Volume Up Signal | II | — |
| 9 | 0.35 | GY/BN | 4314 | Radio Volume Down Signal | II | — |
| 10 | 0.75 | BK | 2550 | Ground | I | — |
| 11 | 0.5 | WH | 46 | Right Rear Speaker Control (+) | I | — |
| 12 | 0.5 | D-BU/BK | 115 | Right Rear Speaker Signal (-) | I | — |
| 13 | 0.5 | L-GN | 199 | Left Rear Speaker Control (+) | I | — |
| 14 | 0.5 | L-GN/BK | 116 | Left Rear Speaker Signal (-) | I | — |
| 15 | 0.75 | YE/BK | 117 | Right Front Speaker Signal (-) 1 | I | — |
| 16 | 0.75 | YE | 200 | Right Front Speaker Control (+) 1 | I | — |
| 17 | 0.75 | BN/D-BU | 118 | Left Front Speaker Signal (-) 1 | I | — |
| 18 | 0.75 | D-BU | 201 | Left Front Speaker Control (+) 1 | I | — |
| 19 | — | — | — | Not Occupied | — | — |
| 20 | 0.75 | RD/VT | 340 | Battery Positive Voltage | I | — |

# A11 Radio X3 (IO3/IO5/IO6)



4332214

### Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15512506
Service Connector: 13591061
Description: 16-Way F 1.5 OCS Series (BK)

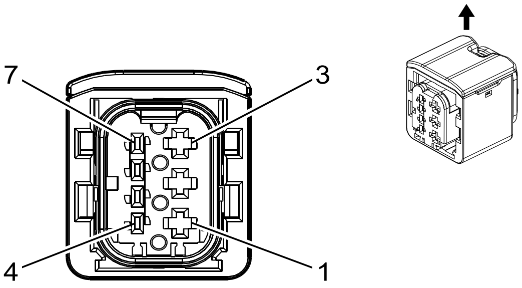
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19301767 | J-35616-2A (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |

## A11 Radio X3 (IO3/IO5/IO6)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | D-BU | 201 | Left Front Speaker Control (+) 1 | I | — |
| 2 | 0.75 | YE | 200 | Right Front Speaker Control (+) 1 | I | — |
| 3 | 0.5 | L-GN | 199 | Left Rear Speaker Control (+) | I | — |
| 4 | 0.5 | WH | 46 | Right Rear Speaker Control (+) | I | — |
| 5 - 7 | — | — | — | Not Occupied | — | — |
| 8 | 0.75 | RD/VT | 340 | Battery Positive Voltage | I | — |
| 9 | 0.75 | BN/D-BU | 118 | Left Front Speaker Signal (-) 1 | I | — |
| 10 | 0.75 | YE/BK | 117 | Right Front Speaker Signal (-) 1 | I | — |
| 11 | 0.5 | L-GN/BK | 116 | Left Rear Speaker Signal (-) | I | — |
| 12 | 0.5 | D-BU/BK | 115 | Right Rear Speaker Signal (-) | I | — |
| 13 - 15 | — | — | — | Not Occupied | — | — |
| 16 | 0.75 | BK | 2550 | Ground | I | — |

# A16 Transfer Case Motor (NQF)



4975548

## Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 13831149
Service Connector: 19370827
Description: 7-Way F 1.5, 2.8 MCP Series, Sealed (BK)

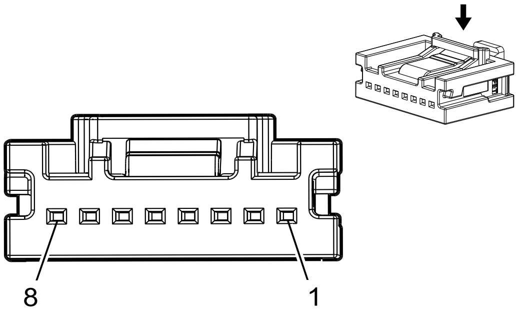
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## A16 Transfer Case Motor (NQF)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1 | YE/VT | 1553 | Transfer Case Motor Counter Clockwise Control | II | — |
| 2 | — | — | — | Not Occupied | — | — |
| 3 | 1 | OG | 1552 | Transfer Case Motor Clockwise Control | II | — |
| 4 | 0.5 | VT | 7476 | Incremental Encoder Sensor Low Reference | I | — |
| 5 | — | — | — | Not Occupied | — | — |
| 6 | 0.5 | D-BU/GY | 7473 | Incremental Encoder Impulse Signal | I | — |
| 7 | 0.5 | WH/L-GN | 7475 | Incremental Encoder Sensor 8V Reference | I | — |

# A22 Radio Controls (IOB)



4017639

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15532151
Service Connector: 19355393
Description: 8-Way F 0.64 Series (BK)

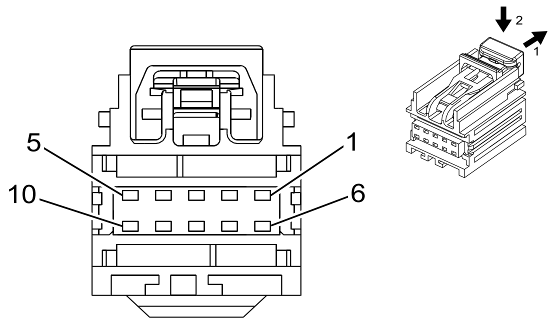
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | EL-35616-58 (BK) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## A22 Radio Controls (IOB)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY/BN | 3761 | Infotainment Regulated Control | I | — |
| 2 | 0.35 | L-GN/BK | 2515 | Keypad Control | I | — |
| 3 | 0.35 | BN/L-GN | 3983 | Display Radio Bank Switch Signal 2 | I | — |
| 4 | 0.35 | GY | 314 | Radio On Signal | I | — |
| 5 | 0.35 | GY/D-BU | 3989 | Display Radio Bank Switch Dim Signal | I | — |
| 6 | 0.35 | D-BU | 4315 | Radio Volume Up Signal | I | — |
| 7 | 0.35 | GY/BN | 4314 | Radio Volume Down Signal | I | — |
| 8 | 0.35 | BK/BN | 2518 | Keypad Low Reference | I | — |

# A23D Door Latch Assembly - Driver



4622549

## Connector Part Information

Harness Type: Driver Door
OEM Connector: 33320811
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 YESC Kaizen Series (GN)

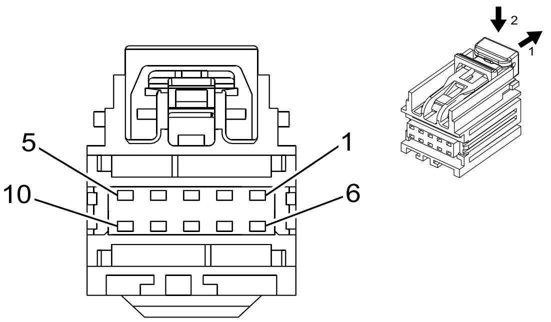
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## A23D Door Latch Assembly - Driver

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY | 745 | Left Front Door Ajar Switch Signal | I | — |
| 2 | — | — | — | Not Occupied | — | — |
| 3 | 0.5 | BK | 1150 | Ground | I | — |
| 4 | 0.35 | WH/VT | 3270 | Driver Door Lock Motor Status Signal | I | — |
| 5 | 0.35 | D-BU/VT | 1124 | Door Lock Key Switch Unlock Signal | I | — |
| 6 | — | — | — | Not Occupied | — | — |
| 7 | 0.75 | GY | 5911 | Door Lock Actuator Lock Control 2 | I | — |
| 8 | 0.75 | BN/BK | 294 | Door Lock Actuator Unlock Control | I | — |
| 9 - 10 | — | — | — | Not Occupied | — | — |

# A23LR Door Latch Assembly - Left Rear (Crew Cab)



4622549

## Connector Part Information

Harness Type: Left Rear Door
OEM Connector: 33320811
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 YESC Kaizen Series (GN)

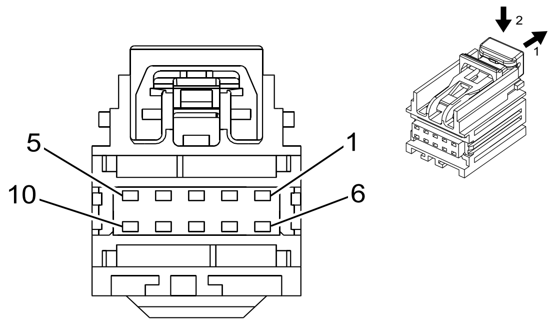
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## A23LR Door Latch Assembly - Left Rear (Crew Cab)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY/WH | 747 | Left Rear Door Ajar Switch Signal | I | — |
| 2 | 0.35 | BN/WH | 3269 | Child Security Lock Motor Status Signal Left Rear | I | — |
| 3 | 0.5 | BK | 1150 | Ground | I | — |
| 4 - 6 | — | — | — | Not Occupied | — | — |
| 7 | 0.75 | GY | 295 | Door Lock Actuator Lock Control | I | — |
| 8 | 0.75 | BN/YE | 294 | Door Lock Actuator Unlock Control | I | — |
| 9 | 0.75 | WH/D-BU | 3266 | Child Security Lock Motor Lock Control | I | — |
| 10 | — | — | — | Not Occupied | — | — |

# A23P Door Latch Assembly - Passenger



4622549

## Connector Part Information

Harness Type: Passenger Door
OEM Connector: 33320811
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 YESC Kaizen Series (GN)

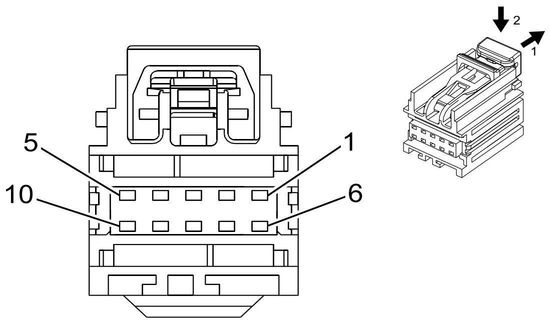
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## A23P Door Latch Assembly - Passenger

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 2 | — | — | — | Not Occupied | — | — |
| 3 | 0.5 | BK | 1250 | Ground | I | — |
| 4 | — | — | — | Not Occupied | — | — |
| 5 | 0.35 | GY | 746 | Right Front Door Ajar Switch Signal | I | — |
| 6 - 7 | — | — | — | Not Occupied | — | — |
| 8 | 0.75 | BN/YE | 294 | Door Lock Actuator Unlock Control | I | — |
| 9 | 0.75 | GY | 295 | Door Lock Actuator Lock Control | I | — |
| 10 | — | — | — | Not Occupied | — | — |

# A23RR Door Latch Assembly - Right Rear (Crew Cab)



4622549

## Connector Part Information

Harness Type: Right Rear Door
OEM Connector: 33320811
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 YESC Kaizen Series (GN)

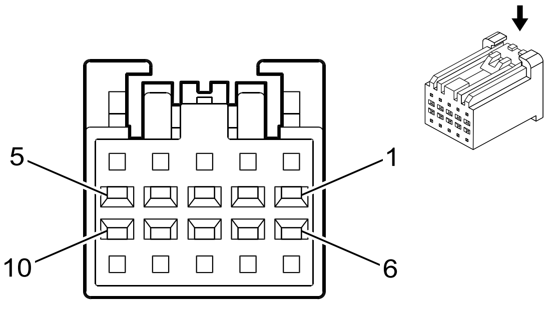
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## A23RR Door Latch Assembly - Right Rear (Crew Cab)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 2 | — | — | — | Not Occupied | — | — |
| 3 | 0.5 | BK | 1250 | Ground | I | — |
| 4 | 0.35 | GY/BK | 3268 | Child Security Lock Motor Status Signal Right Rear | I | — |
| 5 | 0.35 | GY/WH | 748 | Right Rear Door Ajar Switch Signal | I | — |
| 6 | — | — | — | Not Occupied | — | — |
| 7 | 0.75 | WH/D-BU | 3266 | Child Security Lock Motor Lock Control | I | — |
| 8 | 0.75 | BN/YE | 294 | Door Lock Actuator Unlock Control | I | — |
| 9 | 0.75 | GY | 295 | Door Lock Actuator Lock Control | I | — |
| 10 | — | — | — | Not Occupied | — | — |

# A26 HVAC Controls



2840038

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13876499
Service Connector: 13581139
Description: 10-Way F 0.64 Kaizen Series (GY)

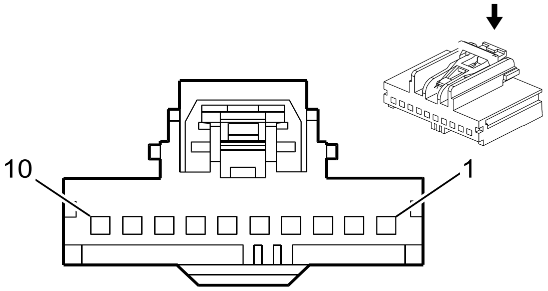
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |
| II | 13575867 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |

## A26 HVAC Controls

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | RD/GY | 2840 | Battery Positive Voltage | I | — |
| 2 | — | — | — | Not Occupied | — | — |
| 3 | 0.35 | L-GN | 5060 | Low Speed GMLAN Serial Data | II | — |
| 4 - 8 | — | — | — | Not Occupied | — | — |
| 9 | 0.35 | L-GN/YE | 7531 | Local Interconnect Network Serial Data Bus 9 | II | — |
| 10 | 0.35 | BK | 2550 | Ground | II | — |

# A33 Media Disc Player (TG5)



1711011

### Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15490628
Service Connector: 89047355
Description: 10-Way F 0.64 Kaizen Series (BK)

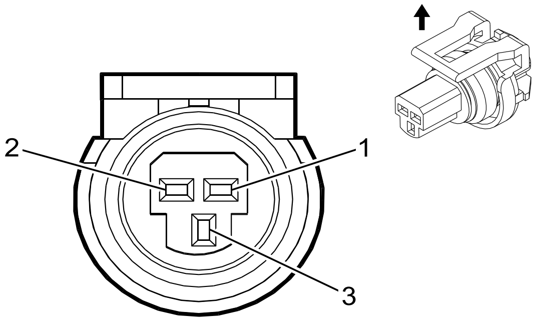
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |
| II | 13575867 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |

## A33 Media Disc Player (TG5)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/VT | 3999 | MOST Control | II | — |
| 2 | — | — | — | Not Occupied | — | — |
| 3 | 0.5 | WH/L-GN | 3997 | MOST Serial Data (-) | I | — |
| 4 | 0.5 | GY/VT | 3998 | MOST Serial Data (+) | I | — |
| 5 | 0.5 | WH/L-GN | 3997 | MOST Serial Data (-) | I | — |
| 6 | 0.5 | GY/VT | 3998 | MOST Serial Data (+) | I | — |
| 7 | — | — | — | Not Occupied | — | — |
| 8 | 0.75 | BK | 2550 | Ground | I | — |
| 9 | — | — | — | Not Occupied | — | — |
| 10 | 0.75 | RD/VT | 340 | Battery Positive Voltage | I | — |

# B1 A/C Refrigerant Pressure Sensor (C67)



## Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 13846842
Service Connector: 19368669
Description: 3-Way F 150 GT Series, Sealed (BK)

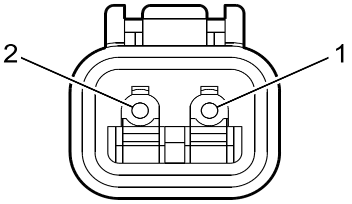
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B1 A/C Refrigerant Pressure Sensor (C67)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BK/BN | 5514 | A/C Refrigerant Pressure Sensor Low Reference | I | — |
| 2 | 0.5 | BN/RD | 2700 | A/C Pressure Sensor 5V Reference | I | — |
| 3 | 0.5 | L-GN | 380 | A/C Refrigerant Pressure Sensor Signal | I | — |

# B5LF Wheel Speed Sensor - Left Front



4976379

## Connector Part Information

Harness Type: Chassis
OEM Connector: 3866308C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F DT Series, Sealed (BK)

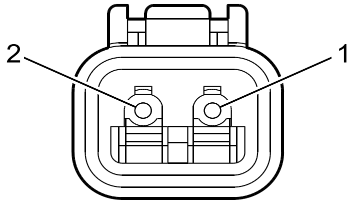
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B5LF Wheel Speed Sensor - Left Front

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | GY/WH | 7064 | Wheel Speed Sensor Control Left Front | I | — |
| 2 | 0.75 | GY | 830 | Wheel Speed Sensor Signal Left Front | I | — |

## B5LR Wheel Speed Sensor - Left Rear



4976379

### Connector Part Information

Harness Type: Chassis Rear Left
OEM Connector: 3866308C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F DT Series, Sealed (BK)

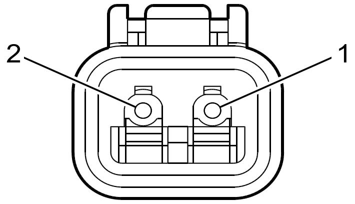
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### B5LR Wheel Speed Sensor - Left Rear

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1 | GY/BK | 7127 | Wheel Speed Sensor Control Left Rear | I | — |
| 2 | 1 | BU | 884 | Wheel Speed Sensor Signal Left Rear | I | — |

# B5RF Wheel Speed Sensor - Right Front



4976379

## Connector Part Information

Harness Type: Chassis
OEM Connector: 3866308C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F DT Series, Sealed (BK)

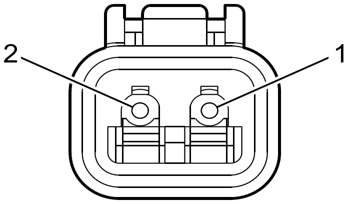
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B5RF Wheel Speed Sensor - Right Front

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | GY/BN | 7065 | Wheel Speed Sensor Control Right Front | I | — |
| 2 | 0.75 | YE | 872 | Wheel Speed Sensor Signal Right Front | I | — |

# B5RR Wheel Speed Sensor - Right Rear



4976379

## Connector Part Information

Harness Type: Chassis Rear Right
OEM Connector: 3866308C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F DT Series, Sealed (BK)

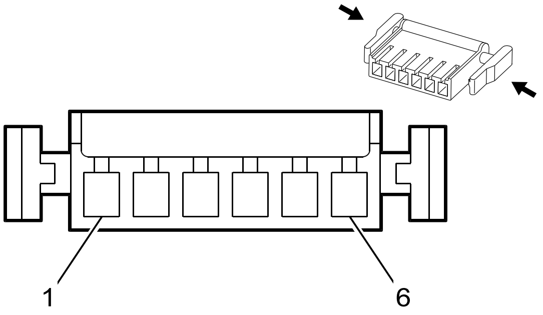
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B5RR Wheel Speed Sensor - Right Rear

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | WH/BU | 7128 | Wheel Speed Sensor Control Right Rear | I | — |
| 2 | 1 | VT | 882 | Wheel Speed Sensor Signal Right Rear | I | — |

# B10B Ambient Light/Sunload Sensor



2173602

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13726957
Service Connector: 13576539
Description: 6-Way F 0.64 Micro-Quadlock Series (BK)

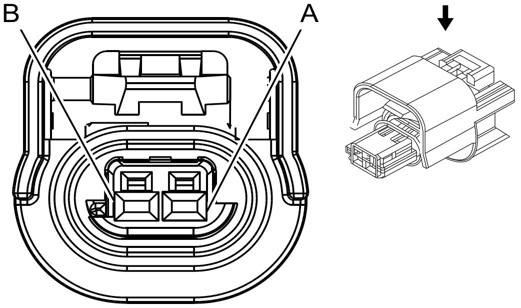
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B10B Ambient Light/Sunload Sensor

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY | 728 | Security Indicator Control | I | — |
| 2 - 4 | — | — | — | Not Occupied | — | — |
| 5 | 0.35 | WH/D-BU | 278 | Ambient Light Sensor Signal | I | — |
| 6 | 0.35 | BK/YE | 1791 | Air Temperature Door Control Low Reference | I | — |

# B14A Transmission Output Shaft Speed Sensor



2171193

## Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 13520101
Service Connector: 13504951
Description: 2-Way F 150 GT Series, Sealed (BK)

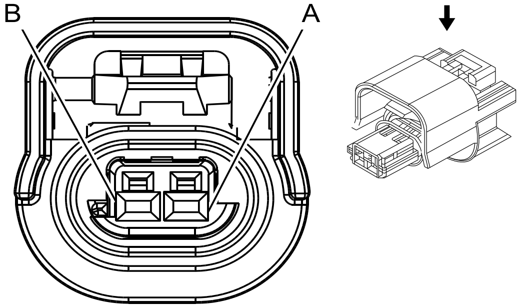
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B14A Transmission Output Shaft Speed Sensor

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.75 | YE | 160 | Antenna Motor Down Control | I | — |
| B | 0.75 | L-GN | 140 | Battery Positive Voltage | I | — |

# B14B Transmission Turbine Speed Sensor



2171193

## Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 13520101
Service Connector: 13504951
Description: 2-Way F 150 GT Series, Sealed (BK)

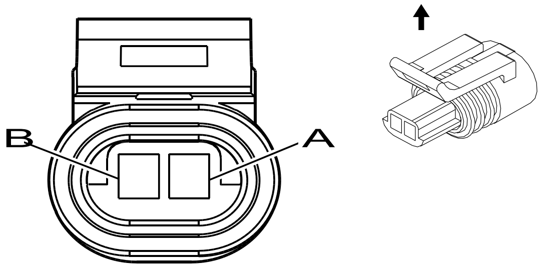
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B14B Transmission Turbine Speed Sensor

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.75 | OG | 180 | Remote Compact Disc/Cassette Player Control | I | — |
| B | 0.75 | D-BU | 120 | Fuel Pump Control | I | — |

# B20 Brake Fluid Level Switch



655692

## Connector Part Information

Harness Type: Brake Booster
OEM Connector: 2036583C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150.2 Metri-Pack Series, Sealed (BK)

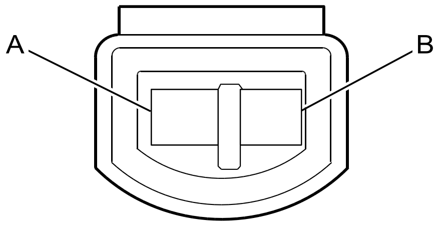
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B20 Brake Fluid Level Switch

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.75 | GY | 9 | Park Lamp Control | I | — |
| B | 0.75 | GY | 90 | Right Mirror Motor Left Control | I | — |

# B21C Brake Pressure Differential Switch



5169092

## Connector Part Information

Harness Type: Brake Booster
OEM Connector: 3518873C91
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Sealed (NA)

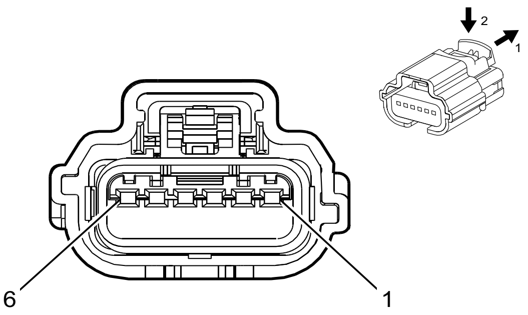
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B21C Brake Pressure Differential Switch

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 16 | GN | 90 | Right Mirror Motor Left Control | I | — |
| B | 16 | GN | 90 | Right Mirror Motor Left Control | I | — |

# B22 Brake Pedal Position Sensor (NQF)



4773396

## Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 35199160
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 64 Series, Sealed (NA)

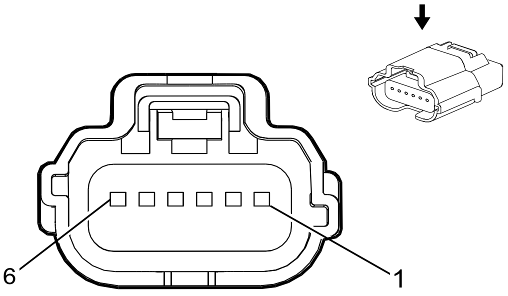
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B22 Brake Pedal Position Sensor (NQF)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BK/GN | 552 | Sensor Low Reference | I | — |
| 2 | 0.5 | GY/RD | 598 | 5V Reference | I | — |
| 3 | 0.5 | WH/GN | 526 | Stop Lamp Switch Signal | I | — |
| 4 | 0.5 | BU/YE | 5361 | Brake Apply Sensor Signal | I | — |
| 5 | 0.5 | BK/BN | 5360 | Brake Apply Sensor Low Reference | I | — |
| 6 | 0.5 | WH | 5359 | Brake Apply Sensor Control | I | — |

# B22 Brake Pedal Position Sensor (-NQF)



3270302

## Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 13893502
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 64 Series, Sealed (NA)

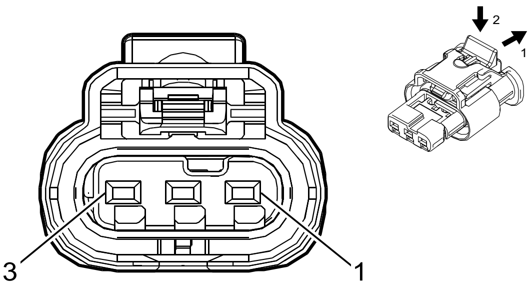
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B22 Brake Pedal Position Sensor (-NQF)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BK/L-GN | 552 | Sensor Low Reference | I | — |
| 2 | 0.5 | GY/RD | 598 | 5V Reference | I | — |
| 3 | 0.5 | WH/L-GN | 526 | Stop Lamp Switch Signal | I | — |
| 4 | 0.5 | D-BU/YE | 5361 | Brake Apply Sensor Signal | I | — |
| 5 | 0.5 | BK/BN | 5360 | Brake Apply Sensor Low Reference | I | — |
| 6 | 0.5 | WH | 5359 | Brake Apply Sensor Control | I | — |

# B23 Camshaft Position Sensor



4256077

## Connector Part Information

Harness Type: Engine
OEM Connector: 13594670
Service Connector: 19352065
Description: 3-Way F 1.2 MCP Series, Sealed (BN)

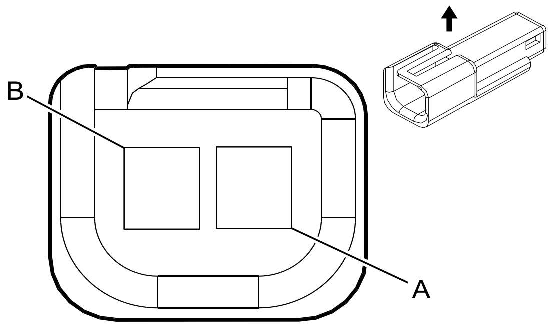
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B23 Camshaft Position Sensor

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/BU | 5300 | Camshaft Position Intake Sensor Control 1 | I | — |
| 2 | 0.5 | BK/GN | 5301 | Camshaft Position Intake Sensor Low Reference 1 | I | — |
| 3 | 0.5 | YE/VT | 5275 | Camshaft Position Intake Sensor 1 | I | — |

# B24 Mobile Telephone Microphone (IO5/IO6/IOB/UE1)



35441

## Connector Part Information

Harness Type: Headliner
OEM Connector: 12047663
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series (BK)

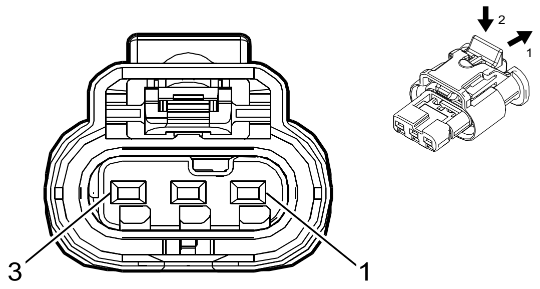
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B24 Mobile Telephone Microphone (IO5/IO6/IOB/UE1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35 | BK/BN | 654 | Cellular Telephone Microphone Low Reference | I | — |
| B | 0.35 | D-BU | 655 | Cellular Telephone Microphone Signal | I | — |

## B26 Crankshaft Position Sensor



4256077

### Connector Part Information

- Harness Type: Engine Left
- OEM Connector: 13594670
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.2 MCP Series, Sealed (BN)

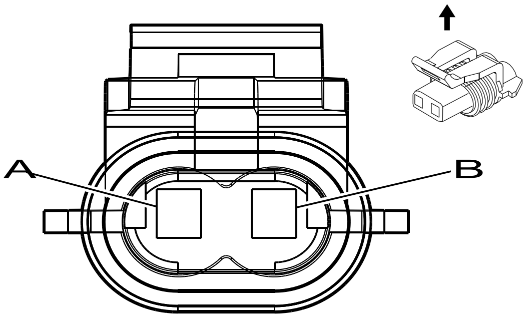
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### B26 Crankshaft Position Sensor

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/BU | 6270 | Crankshaft 60X Sensor 5V Reference | I | — |
| 2 | 0.5 | BK/VT | 6272 | Crankshaft 60X Sensor Low Reference | I | — |
| 3 | 0.5 | GN | 6271 | Crankshaft 60X Sensor Signal | I | — |

# B33 Engine Coolant Level Switch



655783

## Connector Part Information

Harness Type: Body
OEM Connector: 15324243
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

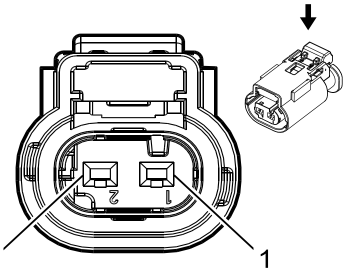
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B33 Engine Coolant Level Switch

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.5 | D-BU/YE | 68 | Low Coolant Level Indicator Control | I | — |
| B | 0.75 | BK/WH | 1851 | Signal Ground | I | — |

# B34 Engine Coolant Temperature Sensor



2717066

## Connector Part Information

Harness Type: Engine Left
OEM Connector: 13503566
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

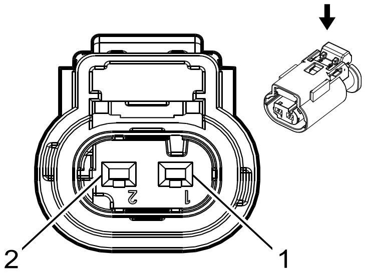
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B34 Engine Coolant Temperature Sensor

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BK/BN | 2761 | Coolant Temperature Sensor Low Reference | I | — |
| 2 | 0.5 | BU | 410 | Engine Coolant Temperature Sensor Signal | I | — |

# B35 Engine Oil Level Switch



2717066

## Connector Part Information

Harness Type: Engine Left
OEM Connector: 13503566
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

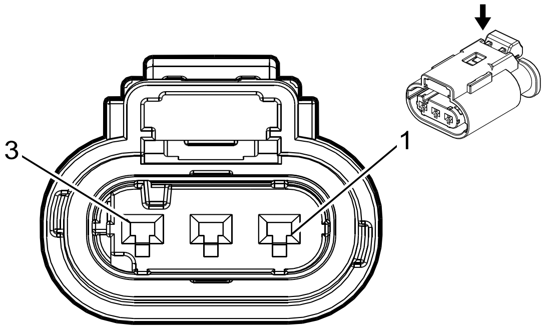
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B35 Engine Oil Level Switch

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BK/WH | 251 | Signal Ground | I | — |
| 2 | 0.5 | BN/GN | 1174 | Oil Level Switch Signal | I | — |

## B37B Engine Oil Pressure Sensor



3240107

### Connector Part Information

Harness Type: Engine Left
OEM Connector: 13503573
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

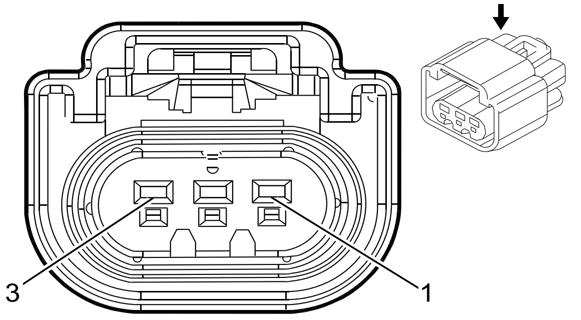
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### B37B Engine Oil Pressure Sensor

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | YE/BN | 331 | Oil Pressure Sensor Signal | I | — |
| 2 | 0.5 | BK/VT | 2755 | Oil Pressure Sensor Low Reference | I | — |
| 3 | 0.5 | WH/RD | 2705 | Oil Pressure Sensor 5V Reference | I | — |

# B47 Fuel Pressure Sensor



1860942

## Connector Part Information

Harness Type: Chassis
OEM Connector: 4088276C1
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 150 GT Series, Sealed (BK)

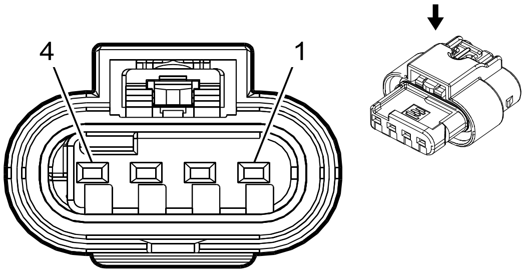
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B47 Fuel Pressure Sensor

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BU | 7446 | Fuel Line Pressure Sensor Signal | I | — |
| 2 | 0.5 | BK/YE | 7447 | Fuel Line Pressure Sensor Low Reference | I | — |
| 3 | 0.5 | BN/RD | 7445 | Fuel Line Pressure Sensor 5V Reference | I | — |

# B47B Fuel Rail Pressure Sensor



2596543

## Connector Part Information

Harness Type: Engine Left
OEM Connector: 13576418
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2 MCP Series, Sealed (BK)

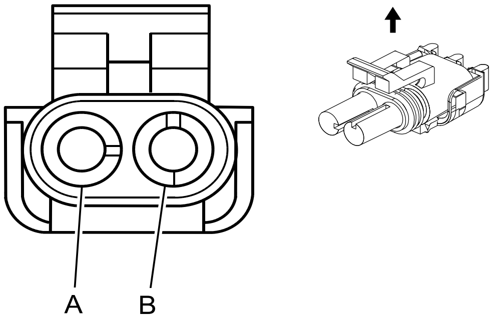
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B47B Fuel Rail Pressure Sensor

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BN/RD | 2917 | Fuel Rail Pressure Sensor 5V Reference | I | — |
| 2 | 0.5 | BN/YE | 2161 | Fuel Rail Pressure Sensor 2 Signal | I | — |
| 3 | 0.5 | BK/GN | 2919 | Fuel Rail Pressure Sensor Low Reference | I | — |
| 4 | 0.5 | BU/WH | 2918 | Fuel Rail Pressure Sensor Signal | I | — |

# B55 Engine Hood Switch (BTV/UTJ)



781760

## Connector Part Information

Harness Type: Left Headlight Jumper
OEM Connector: 587568C91
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Weather Pack Series (BK)

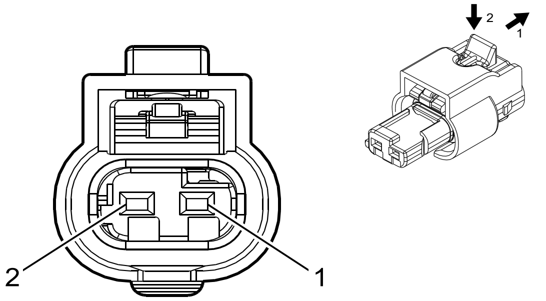
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B55 Engine Hood Switch (BTV/UTJ)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 1.5 | YE | 5530 | Hood Open Switch Signal | I | — |
| B | 1.5 | BN/GN | 109 | Hood Ajar Switch Signal | I | — |

# B59 Front Impact Sensor



4975834

## Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 4087999C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON-CB Series, Sealed (BK)

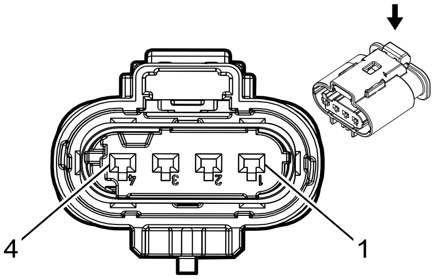
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B59 Front Impact Sensor

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | OG/GY | 6618 | Middle Front Discriminating Sensor Signal | I | — |
| 2 | 1.5 | BK/OG | 6619 | Middle Front Discriminating Sensor Low Reference | I | — |

# B65 Intake Manifold Pressure and Air Temperature Sensor



2717079

## Connector Part Information

Harness Type: Engine
OEM Connector: 13503575
Service Connector: 13587299
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

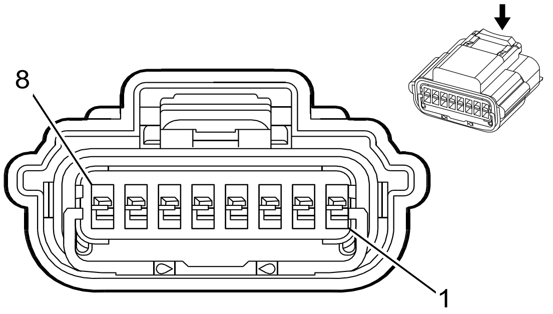
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### B65 Intake Manifold Pressure and Air Temperature Sensor

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BN | 9348 | Induction Air Temperature Sensor 3 Signal | I | — |
| 2 | 0.5 | GY/RD | 2704 | Manifold Absolute Pressure Sensor 5V Reference | I | — |
| 3 | 0.5 | BK/GN | 469 | Manifold Absolute Pressure Sensor Low Reference | I | — |
| 4 | 0.5 | GN/WH | 432 | Manifold Absolute Pressure Sensor Signal | I | — |

# B75C Multifunction Intake Air Sensor



2581486

## Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 13774439
Service Connector: 13583440
Description: 8-Way F 0.64 Series, Sealed (BK)

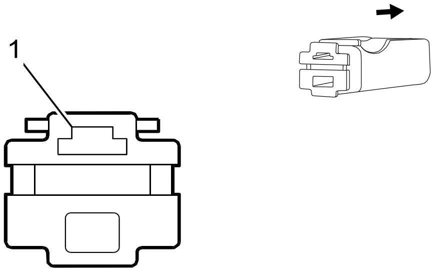
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### B75C Multifunction Intake Air Sensor

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/D-BU | 6289 | Induction Air Temperature Sensor Signal | I | — |
| 2 | 0.5 | WH/RD | 3201 | Throttle Inlet Absolute Pressure Sensor 5V Reference | I | — |
| 3 | 0.5 | BK/VT | 2760 | Intake Air Temperature Sensor Low Reference | I | — |
| 4 | 0.5 | BN/L-GN | 5266 | Ambient Air Pressure Sensor Signal | I | — |
| 5 | 0.5 | VT/D-BU | 5294 | Powertrain Main Relay Fused Supply 5 | I | — |
| 6 | 0.5 | L-GN/WH | 492 | Mass Air Flow Sensor Signal | I | — |
| 7 | 0.75 | BK/WH | 451 | Signal Ground | I | — |
| 8 | 0.5 | BN/GY | 4008 | Humidity Sensor Signal | I | — |

# B80 Park Brake Switch



1413086

## Connector Part Information

Harness Type: Body
OEM Connector: 13511619
Service Connector: 19367647
Description: 1-Way F 250 Series (BK)

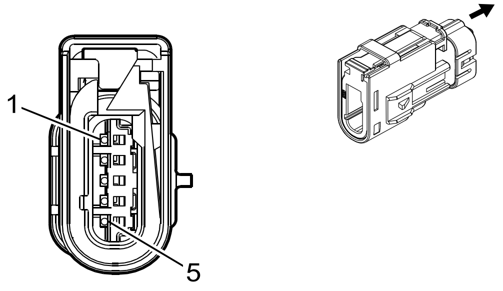
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-42 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B80 Park Brake Switch

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1 | D-BU/VT | 1134 | Park Brake Switch Signal | I | — |

# B87 Rearview Camera (UVC)



4808321

## Connector Part Information

Harness Type: Rearview Camera Jumper
OEM Connector: 13519365
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way M 1.2 Series, Sealed (GY)

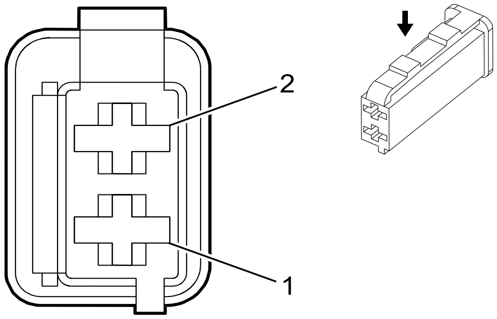
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B87 Rearview Camera (UVC)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | GY/YE | 6972 | Camera Signal 2 + | I | — |
| 2 | 0.75 | WH/BU | 6973 | Camera Signal 2 | I | — |
| 3 | 0.5 | WH | 6974 | Camera Low Reference | I | — |
| 4 | 0.75 | BK | 2550 | Ground | I | — |
| 5 | 0.75 | VT/GN | 1739 | Run/Crank Ignition 1 Voltage | I | — |

# B88D Seat Belt Switch - Driver



2339593

## Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 1563189-1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.6 Timer Series (BK)

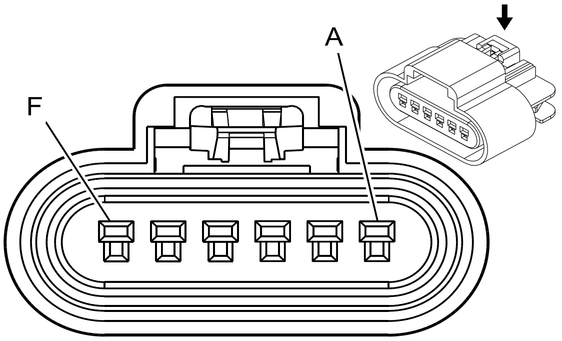
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B88D Seat Belt Switch - Driver

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK/OG | 1363 | Driver Seat Belt Switch Low Reference | I | — |
| 2 | 0.35 | OG/BN | 238 | Driver Seat Belt Switch Signal | I | — |

# B107 Accelerator Pedal Position Sensor (NQF)



632357

## Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 15397578
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 150 GT Series, Sealed (BK)

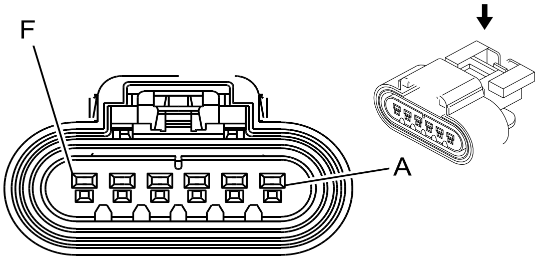
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B107 Accelerator Pedal Position Sensor (NQF)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35 | BK/VT | 1272 | Accelerator Pedal Position Low Reference 2 | I | — |
| B | 0.35 | GN/WH | 1162 | Accelerator Pedal Position Signal 2 | I | — |
| C | 0.35 | BN/RD | 1274 | Accelerator Pedal Position 5V Reference 2 | I | — |
| D | 0.35 | WH/RD | 1164 | Accelerator Pedal Position 5V Reference 1 | I | — |
| E | 0.35 | YE/WH | 1161 | Accelerator Pedal Position Signal 1 | I | — |
| F | 0.35 | BK/BU | 1271 | Accelerator Pedal Position Low Reference 1 | I | — |

# B107 Accelerator Pedal Position Sensor (-NQF)



## Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 15326830
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 150 GT Series, Sealed (BK)

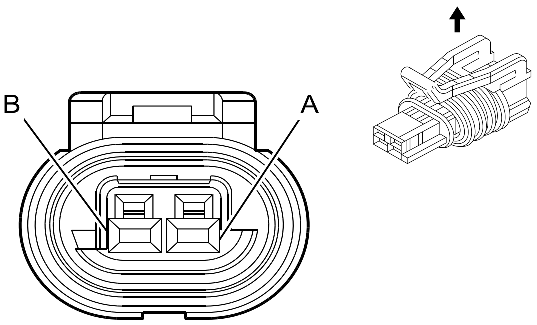
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B107 Accelerator Pedal Position Sensor (-NQF)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35 | BK/VT | 1272 | Accelerator Pedal Position Low Reference 2 | I | — |
| B | 0.35 | L-GN/WH | 1162 | Accelerator Pedal Position Signal 2 | I | — |
| C | 0.35 | BN/RD | 1274 | Accelerator Pedal Position 5V Reference 2 | I | — |
| D | 0.35 | WH/RD | 1164 | Accelerator Pedal Position 5V Reference 1 | I | — |
| E | 0.35 | YE/WH | 1161 | Accelerator Pedal Position Signal 1 | I | — |
| F | 0.35 | BK/D-BU | 1271 | Accelerator Pedal Position Low Reference 1 | I | — |

# B118B Windshield Washer Fluid Level Switch



### Connector Part Information

Harness Type: Body
OEM Connector: 15449028
Service Connector: 88987993
Description: 2-Way F 150 GT Series, Sealed (BK)

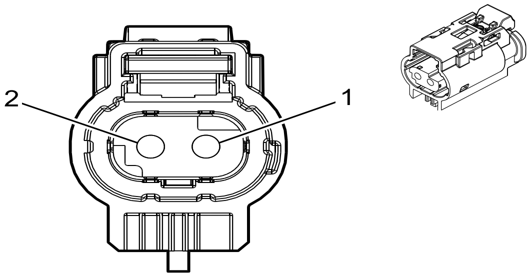
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### B118B Windshield Washer Fluid Level Switch

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35 | VT | 185 | Low Washer Fluid Indicator Control | I | — |
| B | 0.75 | BK | 1050 | Ground | I | — |

# B130A Exhaust Gas Recirculation Temperature Sensor 1



4451423

## Connector Part Information

Harness Type: Engine
OEM Connector: 13583201
Service Connector: 19354079
Description: 2-Way F 1.2 Multilock Series, Sealed

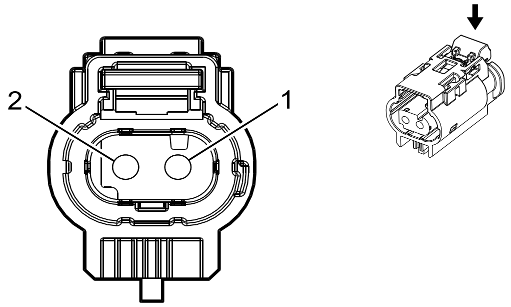
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B130A Exhaust Gas Recirculation Temperature Sensor 1

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | YE/GN | 3236 | Exhaust Gas Recirculation Temperature Sensor 2 Signal | I | — |
| 2 | 0.5 | BK/YE | 6275 | Exhaust Gas Recirculation Temperature Sensor 2 Low Reference | I | — |

## B130B Exhaust Gas Recirculation Temperature Sensor 2



3747581

### Connector Part Information

Harness Type: Engine
OEM Connector: 13583199
Service Connector: 19332628
Description: 2-Way F 1.2 Multilock Series, Sealed (GY)

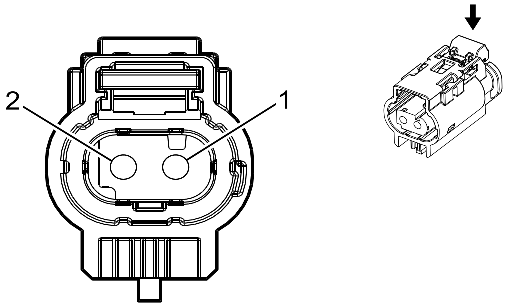
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### B130B Exhaust Gas Recirculation Temperature Sensor 2

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/BN | 3237 | Exhaust Gas Recirculation Temperature Sensor Signal | I | — |
| 2 | 0.5 | BK/BU | 6274 | Exhaust Gas Recirculation Temperature Sensor Low Reference | I | — |

# B131A Exhaust Temperature Sensor 1



3747581

## Connector Part Information

Harness Type: Engine
OEM Connector: 13583195
Service Connector: 19332719
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

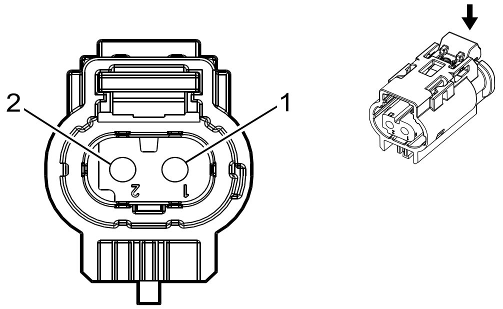
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B131A Exhaust Temperature Sensor 1

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BU/WH | 5277 | Exhaust Gas Temperature Sensor 1 | I | — |
| 2 | 0.5 | BK/BN | 6782 | Exhaust Gas Temperature Sensor 1 Low Reference | I | — |

## B131B Exhaust Temperature Sensor 2



3747580

### Connector Part Information

Harness Type: Engine
OEM Connector: 13583197
Service Connector: 19332627
Description: 2-Way F 1.2 Multilock Series, Sealed

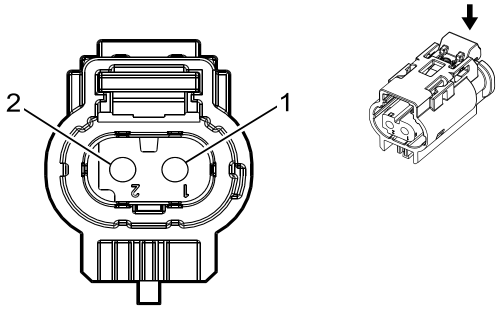
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### B131B Exhaust Temperature Sensor 2

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BU/GN | 5377 | Exhaust Gas Temperature Sensor 2 | I | — |
| 2 | 0.5 | BK/BU | 6783 | Exhaust Gas Temperature Sensor 2 Low Reference | I | — |

# B131C Exhaust Temperature Sensor 3



3747580

## Connector Part Information

Harness Type: Chassis
OEM Connector: 4088566C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Multilock Series, Sealed

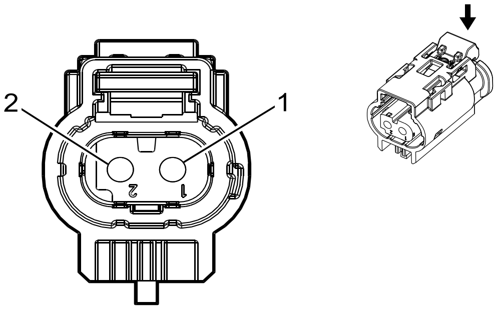
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B131C Exhaust Temperature Sensor 3

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/GN | 5378 | Exhaust Gas Temperature Sensor 3 | I | — |
| 2 | 0.5 | BK/GN | 3657 | Exhaust Gas Temperature Sensor 3 Low Reference | I | — |

# B131D Exhaust Temperature Sensor 4



3747580

## Connector Part Information

Harness Type: Chassis
OEM Connector: 4088566C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Multilock Series, Sealed

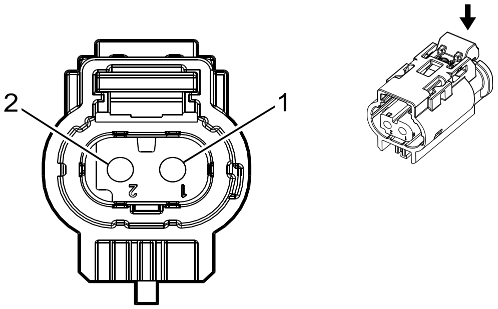
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B131D Exhaust Temperature Sensor 4

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/BN | 3658 | Exhaust Gas Temperature Sensor 4 Signal | I | — |
| 2 | 0.5 | BK/GY | 3659 | Exhaust Gas Temperature Sensor 4 Low Reference | I | — |

# B131E Exhaust Temperature Sensor 5



3747580

## Connector Part Information

Harness Type: Chassis
OEM Connector: 4088566C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Multilock Series, Sealed

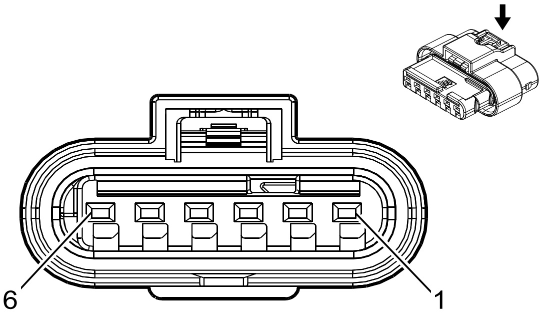
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B131E Exhaust Temperature Sensor 5

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BU/GY | 3660 | Exhaust Gas Temperature Sensor 5 Signal | I | — |
| 2 | 0.5 | BK/VT | 3661 | Exhaust Gas Temperature Sensor 5 Low Reference | I | — |

# B136 Exhaust Particulate Matter Sensor



3747582

## Connector Part Information

Harness Type: Chassis
OEM Connector: 4088465C1
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 1.2 MCON-CB Series, Sealed (BK)

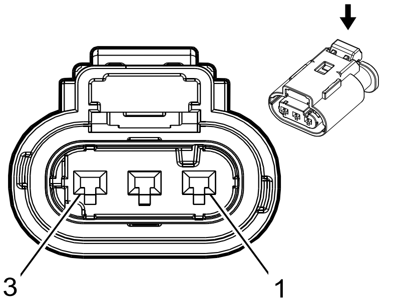
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B136 Exhaust Particulate Matter Sensor

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 2150 | Ground | I | — |
| 2 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | I | — |
| 3 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | I | — |
| 4 | 0.5 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | I | — |
| 5 | 0.5 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | I | — |
| 6 | 1.5 | VT/BU | 3674 | NOx Sensor 1 Control | I | — |

# B154 Diesel Particulate Filter Exhaust Differential Pressure Sensor



2717069

## Connector Part Information

Harness Type: Chassis
OEM Connector: 4088567C1
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

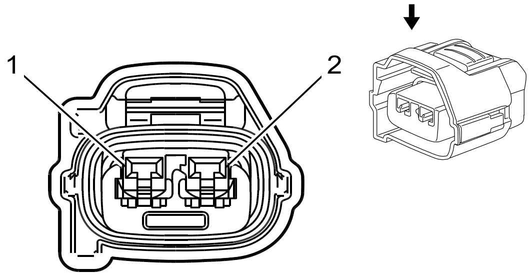
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B154 Diesel Particulate Filter Exhaust Differential Pressure Sensor

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BU | 6053 | Exhaust Pressure Sensor Signal 1 | I | — |
| 2 | 0.5 | BK/YE | 6055 | Exhaust Pressure Sensor Low Reference 1 | I | — |
| 3 | 0.5 | WH/RD | 6054 | Exhaust Pressure Sensor 5V Reference 1 | I | — |

## B193A Charge Air Cooler Inlet Temperature Sensor



2388842

### Connector Part Information

Harness Type: Engine
OEM Connector: 7283-7020-10
Service Connector: 19368660
Description: 2-Way F 090 Series, Sealed (D-GY)

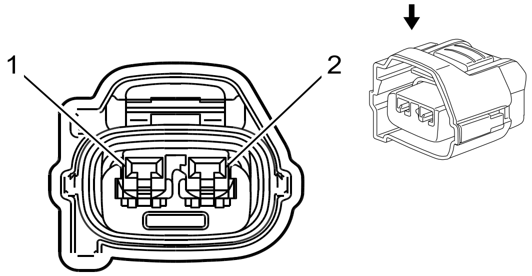
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-18 (BK) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### B193A Charge Air Cooler Inlet Temperature Sensor

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GN | 3683 | Charge Air Cooler Inlet Temperature Sensor Signal | I | — |
| 2 | 0.5 | YE/BK | 3682 | Charge Air Cooler Inlet Temperature Sensor Low Reference | I | — |

# B193B Charge Air Cooler Outlet Temperature Sensor



2388842

## Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 15401053
Service Connector: 19368660
Description: 2-Way F 090 Series, Sealed (D-GY)

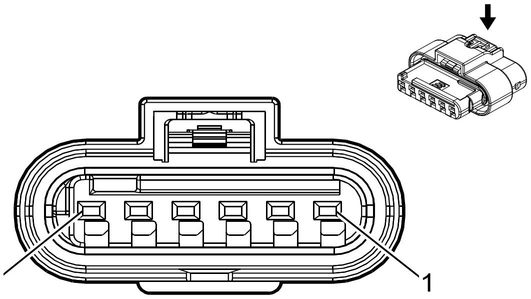
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-18 (BK) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B193B Charge Air Cooler Outlet Temperature Sensor

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BN | 3681 | Charge Air Cooler Outlet Temperature Sensor Signal | I | — |
| 2 | 0.5 | YE/D-BU | 3680 | Charge Air Cooler Outlet Temperature Sensor Low Reference | I | — |

# B195A Nitrogen Oxides Sensor 1



3747584

## Connector Part Information

Harness Type: Body
OEM Connector: 13975341
Service Connector: 19329354
Description: 6-Way F 1.2 MCON-CB Series, Sealed (BN)

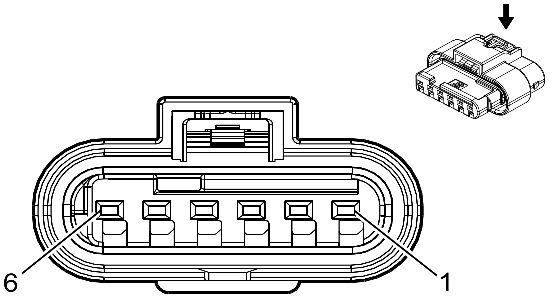
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B195A Nitrogen Oxides Sensor 1

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/D-BU | 3674 | NOx Sensor 1 Control | I | — |
| 2 | 0.5 | D-BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | I | — |
| 3 | 0.5 | D-BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | I | — |
| 4 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | I | — |
| 5 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | I | — |
| 6 | 0.5 | BK/WH | 451 | Signal Ground | I | — |

# B195B Nitrogen Oxides Sensor 2



4045008

## Connector Part Information

Harness Type: Chassis
OEM Connector: 4088640C1
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 1.2 MCON-CB Series, Sealed (BN)

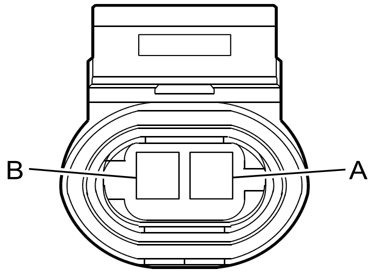
## Terminal Part Information

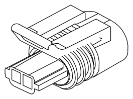
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B195B Nitrogen Oxides Sensor 2

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | VT/BU | 3674 | NOx Sensor 1 Control | I | — |
| 2 | 0.5 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | I | — |
| 3 | 0.5 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | I | — |
| 4 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | I | — |
| 5 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | I | — |
| 6 | 1.5 | BK | 2150 | Ground | I | — |

# B343 Power Brake Booster Fluid Flow Switch





646180

## Connector Part Information

Harness Type: Brake Booster
OEM Connector: 2036584C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150.2 Metri-Pack Series, Sealed (GY)

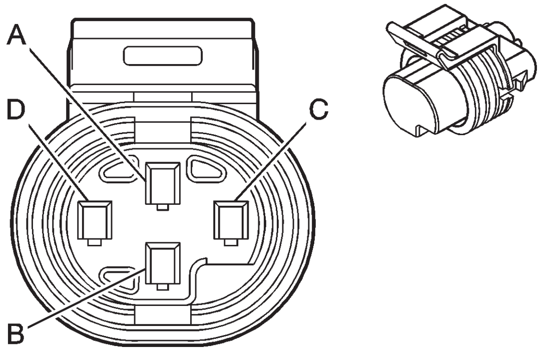
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B343 Power Brake Booster Fluid Flow Switch

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 1 | GY | 90 | Right Mirror Motor Left Control | I | — |
| B | 1 | GY | 90 | Right Mirror Motor Left Control | II | — |

# B353 Air Suspension Low Pressure Warning Switch (G40/GP1/GP8)



1664567

## Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 1661777C1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 Metri-Pack Series, Sealed (BN)

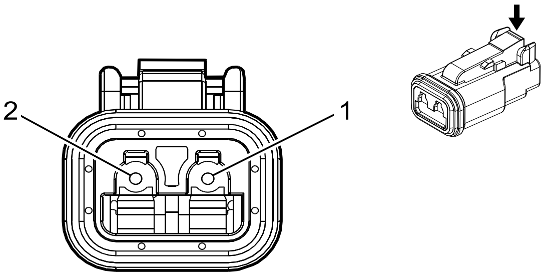
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B353 Air Suspension Low Pressure Warning Switch (G40/GP1/GP8)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| C | 1 | GY | 603 | A/C Low Pressure Switch Signal | I | — |
| D | 1 | BK | 603 | A/C Low Pressure Switch Signal | I | — |

# B356 Brake Pipe Pressure Switch



5168743

## Connector Part Information

Harness Type: Brake Booster
OEM Connector: 3602747C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 DT Series, Sealed (BK)

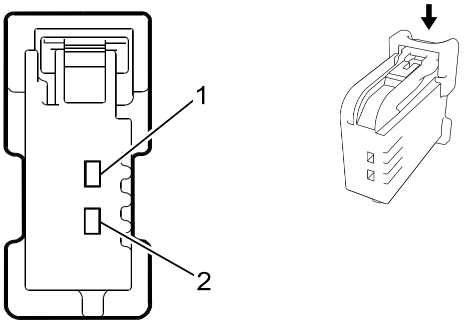
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## B356 Brake Pipe Pressure Switch

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1 | GY | 90 | Right Mirror Motor Left Control | I | — |
| 2 | 2 | GY | 90 | Right Mirror Motor Left Control | I | — |

# E1L Accent Lamp - Overhead Console



2173586

## Connector Part Information

Harness Type: Overhead Console
OEM Connector: 13595207
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series (BK)

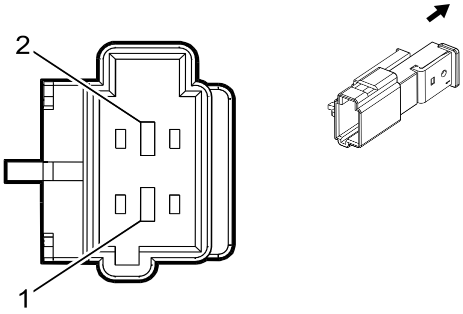
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E1L Accent Lamp - Overhead Console

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT/L-GN | 7558 | LED Ambient Lighting Control 2 | I | — |
| 2 | 0.35 | BK | 1050 | Ground | I | — |

# E3A Roof Clearance Lamp - Left Front Outer



2339581

## Connector Part Information

Harness Type: Right A-Pillar
OEM Connector: 13662506
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.6 Timer Series (BK)

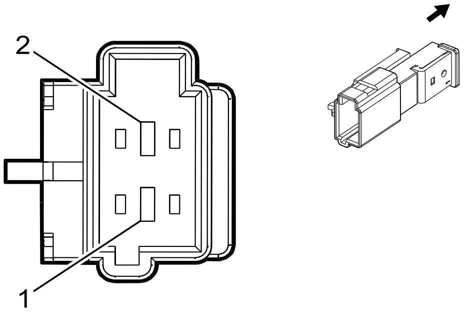
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-34 (YE) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E3A Roof Clearance Lamp - Left Front Outer

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/GY | 709 | Left Park Lamp Control | I | — |
| 2 | 0.5 | BK | 1050 | Ground | I | — |

## E3C Roof Clearance Lamp - Front Middle



2339581

### Connector Part Information

Harness Type: Right A-Pillar
OEM Connector: 13662506
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.6 Timer Series (BK)

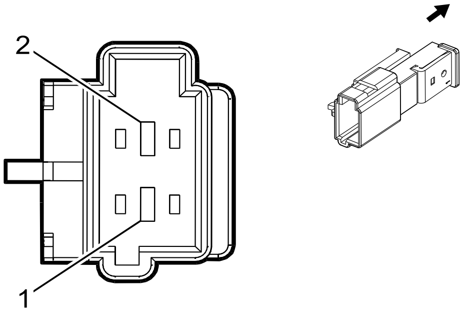
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-34 (YE) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### E3C Roof Clearance Lamp - Front Middle

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/GY | 709 | Left Park Lamp Control | I | — |
| 2 | 0.5 | BK | 1050 | Ground | I | — |

# E3E Roof Clearance Lamp - Right Front Outer



2339581

## Connector Part Information

Harness Type: Right A-Pillar
OEM Connector: 13662506
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.6 Timer Series (BK)

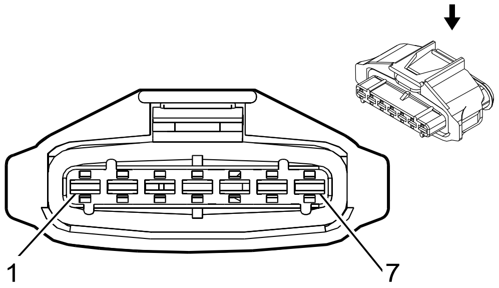
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-34 (YE) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E3E Roof Clearance Lamp - Right Front Outer

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/GY | 709 | Left Park Lamp Control | I | — |
| 2 | 0.5 | BK | 1050 | Ground | I | — |

# E11A Fuel Heater/Water in Fuel Sensor



2537256

## Connector Part Information

Harness Type: Chassis
OEM Connector: 4088469C1
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 2.8 Junior Power Timer Series, Sealed (BK)

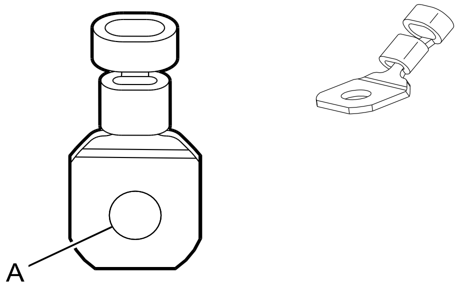
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E11A Fuel Heater/Water in Fuel Sensor

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BK/VT | 412 | Fuel Filter Temperature Sensor Low Reference | I | — |
| 2 | 0.5 | BN/VT | 455 | Fuel Filter Temperature Signal | I | — |
| 3 | 0.5 | BK/BU | 6861 | Water In Fuel Sensor Signal | I | — |
| 4 | 0.5 | BK/BU | 6863 | Water In Fuel Sensor Low Reference | I | — |
| 5 | — | — | — | Not Occupied | — | — |
| 6 | 1.5 | VT/GN | 355 | Fuel Filter Heater Voltage | I | — |
| 7 | 1.5 | BK | 2150 | Ground | I | — |

# E12A Glow Plug 1



3471503

## Connector Part Information

Harness Type: Engine
OEM Connector: 7009-1338-02
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

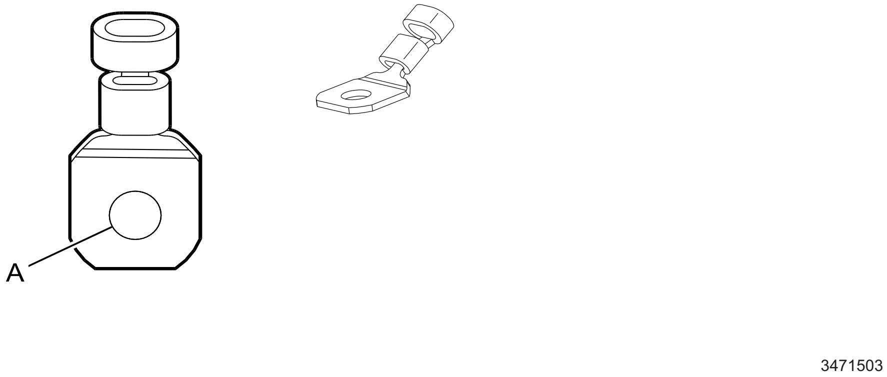
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E12A Glow Plug 1

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 2 | GY/BU | 1581 | Glow Plug Control 1 | I | — |

# E12B Glow Plug 2



## Connector Part Information

Harness Type: Engine
OEM Connector: 7009-1338-02
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

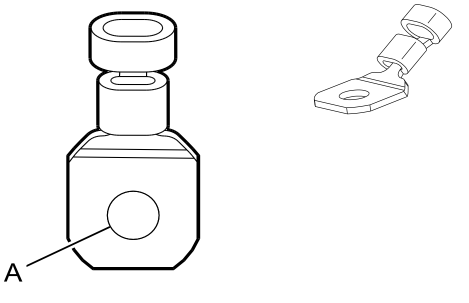
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### E12B Glow Plug 2

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 2 | GY/BN | 1582 | Glow Plug Control 2 | I | — |

# E12C Glow Plug 3



3471503

## Connector Part Information

Harness Type: Engine
OEM Connector: 7009-1338-02
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

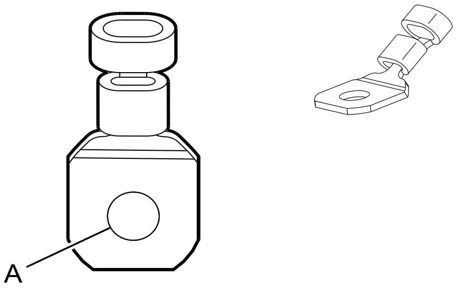
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E12C Glow Plug 3

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 2 | GY/GN | 1583 | Glow Plug Control 3 | I | — |

# E12D Glow Plug 4



3471503

## Connector Part Information

Harness Type: Engine
OEM Connector: 7009-1338-02
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

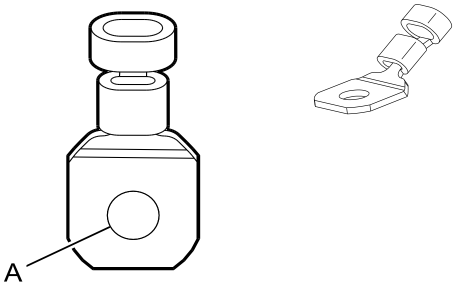
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E12D Glow Plug 4

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 2 | GY/YE | 1584 | Glow Plug Control 4 | I | — |

# E12E Glow Plug 5



3471503

## Connector Part Information

Harness Type: Engine
OEM Connector: 7009-1338-02
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

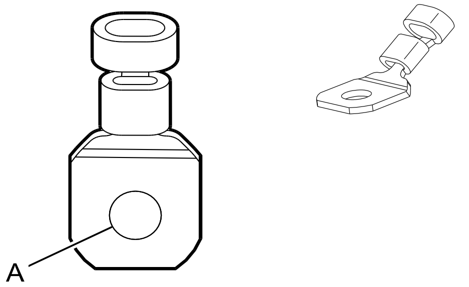
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E12E Glow Plug 5

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 2 | GY/WH | 1585 | Glow Plug Control 5 | I | — |

# E12F Glow Plug 6



## Connector Part Information

Harness Type: Engine
OEM Connector: 7009-1338-02
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

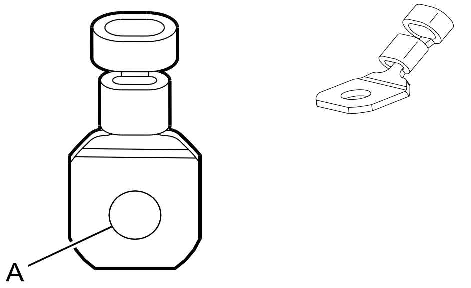
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E12F Glow Plug 6

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 2 | GY/VT | 1586 | Glow Plug Control 6 | I | — |

# E12G Glow Plug 7



3471503

## Connector Part Information

Harness Type: Engine
OEM Connector: 7009-1338-02
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

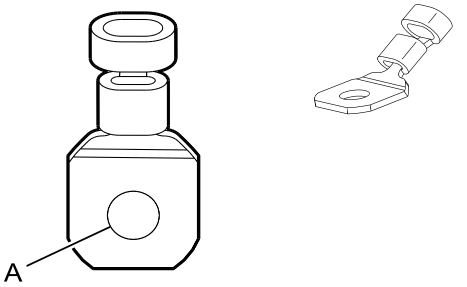
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E12G Glow Plug 7

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 2 | WH/BU | 1588 | Glow Plug Control 8 | I | — |

# E12H Glow Plug 8



3471503

## Connector Part Information

Harness Type: Engine
OEM Connector: 7009-1338-02
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

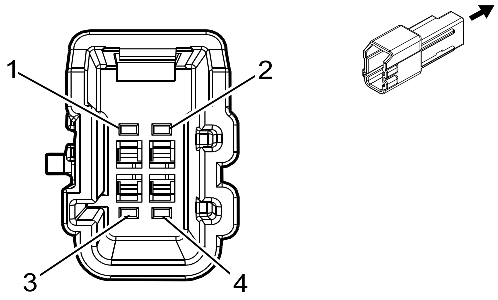
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E12H Glow Plug 8

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 2 | WH/BK | 1587 | Glow Plug Control 7 | I | — |

# E14A Seat Heating Element - Driver Back (KA1)



4293695

## Connector Part Information

Harness Type: Driver Seat Back
OEM Connector: 6098-7781
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series (GY)

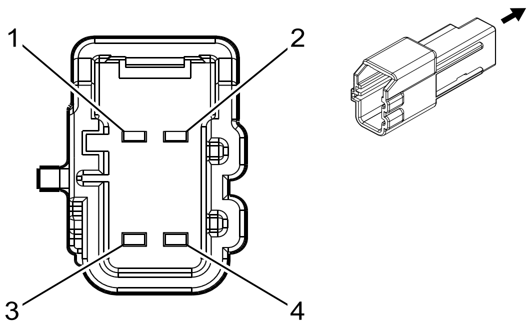
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E14A Seat Heating Element - Driver Back (KA1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BN | 2432 | Driver Heated Back Element Control | I | — |
| 2 | 0.5 | L-BU | 2425 | Driver Heated Back NTC Signal | I | — |
| 3 | 0.5 | BK/YE | 2080 | Driver Heated Seat NTC Low Reference | I | — |
| 4 | 0.75 | BN/BK | 2078 | Driver Heated Seat Element Low Reference | I | — |

# E14B Seat Heating Element - Driver Cushion (KA1)



4210503

## Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 6098-7779
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series (BK)

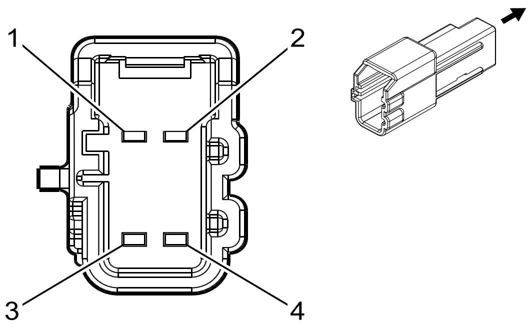
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E14B Seat Heating Element - Driver Cushion (KA1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BN/VT | 2077 | Driver Heated Seat Element Control | I | — |
| 2 | 0.5 | YE/GY | 2079 | Driver Heated Seat NTC Signal | I | — |
| 3 | 0.5 | BN/YE | 2080 | Driver Heated Seat NTC Low Reference | I | — |
| 4 | 0.75 | BN/BK | 2078 | Driver Heated Seat Element Low Reference | I | — |

# E14D Seat Heating Element - Passenger Cushion (KA1)



4210503

## Connector Part Information

Harness Type: Passenger Seat Cushion
OEM Connector: 6098-7779
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series (BK)

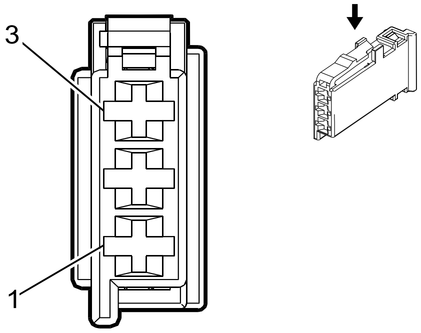
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E14D Seat Heating Element - Passenger Cushion (KA1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BN/L-BU | 2479 | Passenger Heated Seat Element Control | I | — |
| 2 | 0.5 | WH/GY | 2434 | Passenger Heated Seat NTC Signal | I | — |
| 3 | 0.5 | BK/GY | 2435 | Passenger Heated Seat NTC Low Reference | I | — |
| 4 | 0.75 | GY/BK | 2480 | Passenger Heated Seat Element Low Reference | I | — |

# E28 Center Console Compartment Lamp (D07)



2039656

## Connector Part Information

Harness Type: Floor Console
OEM Connector: 10865339
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.6 Micro-Timer Series (BK)

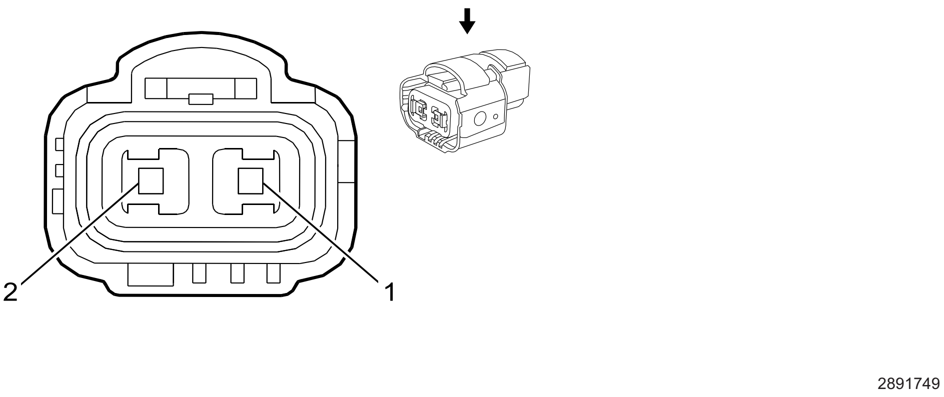
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E28 Center Console Compartment Lamp (D07)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/BN | 6815 | Inadvertent Power Control | I | — |
| 2 | 0.75 | BK | 1050 | Ground | I | — |
| 3 | — | — | — | Not Occupied | — | — |

# E29LF Fog Lamp - Left Front (T3U)



### Connector Part Information

Harness Type: Left Fog Lamp Jumper
OEM Connector: 6131286C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed (BK)

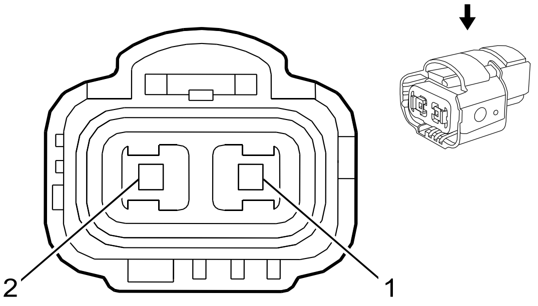
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E29LF Fog Lamp - Left Front (T3U)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | BN/VT | 2234 | Front Fog Lamp Control | I | — |
| 2 | 1.5 | BK | 150 | Ground | I | — |

# E29RF Fog Lamp - Right Front (T3U)



2891749

## Connector Part Information

Harness Type: Right Fog Lamp Jumper
OEM Connector: 6131286C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed (BK)

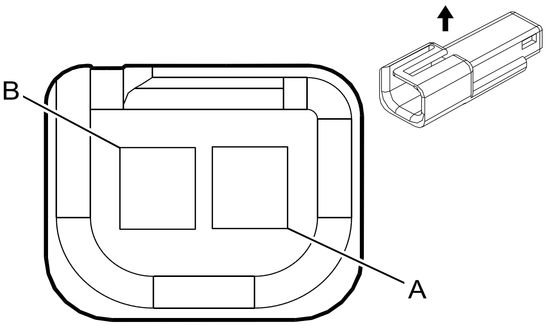
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E29RF Fog Lamp - Right Front (T3U)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | BN/VT | 2234 | Front Fog Lamp Control | I | — |
| 2 | 1.5 | BK | 150 | Ground | I | — |

# E31L Sunshade Mirror Lamp - Left (DH6)



35441

## Connector Part Information

Harness Type: Headliner
OEM Connector: 12047663
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series (BK)

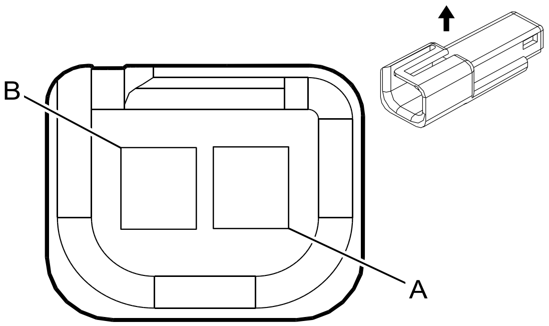
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E31L Sunshade Mirror Lamp - Left (DH6)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.5 | WH/BN | 6815 | Inadvertent Power Control | I | — |
| B | 0.5 | BK | 1050 | Ground | I | — |

# E31R Sunshade Mirror Lamp - Right (DH6)



35441

## Connector Part Information

Harness Type: Headliner
OEM Connector: 12047663
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series (BK)

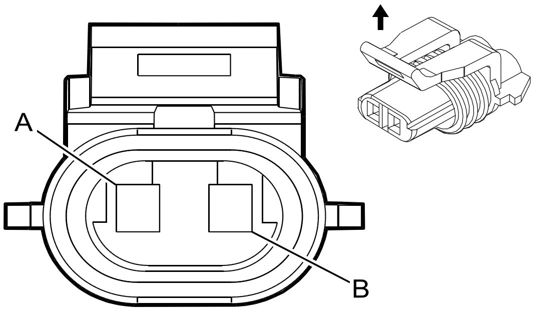
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E31R Sunshade Mirror Lamp - Right (DH6)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.5 | WH/BN | 6815 | Inadvertent Power Control | I | — |
| B | 0.5 | BK | 1050 | Ground | I | — |

# E33 Cargo Lamp



537107

### Connector Part Information

Harness Type: Chassis Rear Right
OEM Connector: 1661778C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

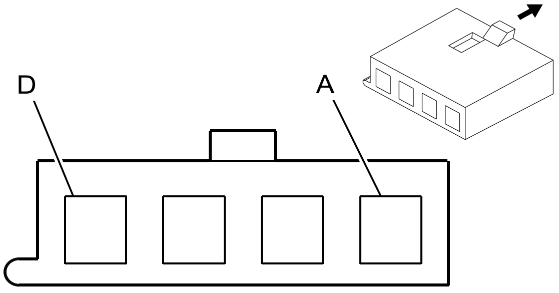
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E33 Cargo Lamp

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.75 | WH/VT | 1430 | Exterior Courtesy Lamp Control | I | — |
| B | 1 | BK | 1430 | Exterior Courtesy Lamp Control | I | — |

# E37B Dome/Reading Lamps - 2nd Row (Crew Cab-AZ3)



287981

## Connector Part Information

Harness Type: Headliner
OEM Connector: 12092162
Service Connector: 15306021
Description: 4-Way F 150 Metri-Pack Series (BK)

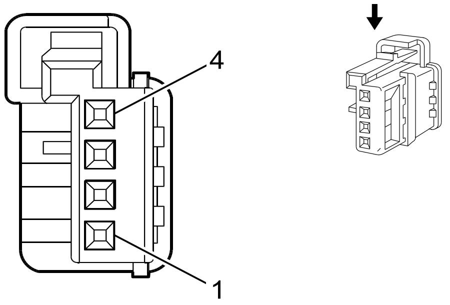
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E37B Dome/Reading Lamps - 2nd Row (Crew Cab-AZ3)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.5 | WH/BN | 6815 | Inadvertent Power Control | I | — |
| B | 0.5 | BK | 1050 | Ground | I | — |
| C | 0.5 | GY | 157 | Interior Lamp Control | I | — |
| D | 0.5 | YE | 6817 | LED Backlight Dimming Control | I | — |

# E37EL Dome/Reading Lamps - Front Overhead Console Left



2904464

## Connector Part Information

Harness Type: Overhead Console
OEM Connector: 10812166
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64 Micro-Quadlock Series (GY)

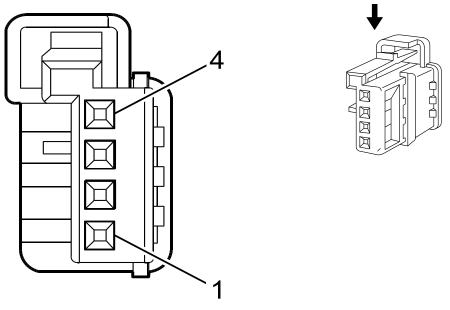
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E37EL Dome/Reading Lamps - Front Overhead Console Left

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | — |
| 2 | 0.5 | WH/BN | 6815 | Inadvertent Power Control | I | — |
| 3 | 0.5 | GY | 157 | Interior Lamp Control | I | — |
| 4 | 0.5 | BK | 1050 | Ground | I | — |

## E37ER Dome/Reading Lamps - Front Overhead Console Right



2904464

### Connector Part Information

Harness Type: Overhead Console
OEM Connector: 10812166
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64 Micro-Quadlock Series (GY)

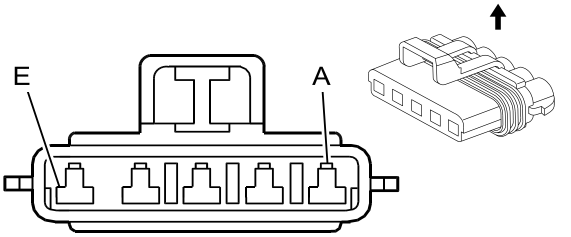
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### E37ER Dome/Reading Lamps - Front Overhead Console Right

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | — |
| 2 | 0.5 | WH/BN | 6815 | Inadvertent Power Control | I | — |
| 3 | 0.5 | GY | 157 | Interior Lamp Control | I | — |
| 4 | 0.5 | BK | 1050 | Ground | I | — |

# E42L Tail Lamp Assembly - Left



243503

## Connector Part Information

Harness Type: Chassis Rear Left
OEM Connector: 1661375C2
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 280 Metri-Pack Series, Sealed

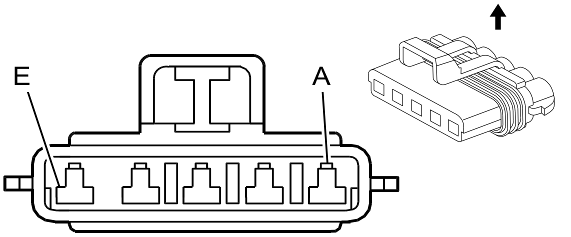
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E42L Tail Lamp Assembly - Left

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 2 | GN/WH | 24 | Backup Lamp Control | I | — |
| B | 2 | YE/BU | 18 | Left Rear Stop/Turn Lamp Control | I | — |
| C | — | — | — | Not Occupied | — | — |
| D | 2 | VT/GY | 709 | Left Park Lamp Control | I | — |
| E | 3 | BK | 10 | Headlamp Switch Signal | I | — |

# E42R Tail Lamp Assembly - Right



243503

## Connector Part Information

Harness Type: Chassis Rear Right
OEM Connector: 1661375C2
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 280 Metri-Pack Series, Sealed

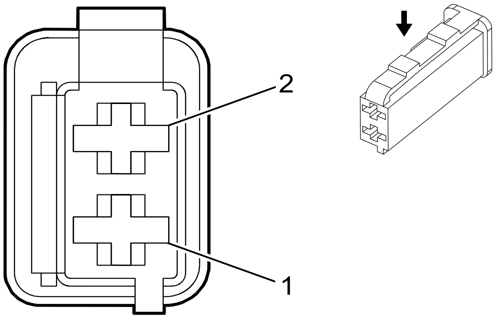
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E42R Tail Lamp Assembly - Right

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 2 | GN/WH | 24 | Backup Lamp Control | I | — |
| B | 2 | GY/BN | 309 | Right Park Lamp Control | I | UGE |
| C | 2 | BN/GN | 19 | Right Rear Stop/Turn Lamp Control | I | — |
| D | 2 | GY/BN | 309 | Right Park Lamp Control | I | TR1 |
| E | 3 | BK | 10 | Headlamp Switch Signal | I | — |

# E63D Flood Lamp - Driver Door Handle (A31)



2339593

## Connector Part Information

Harness Type: Driver Door Trim
OEM Connector: 13670097
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.6 Timer Series (BK)

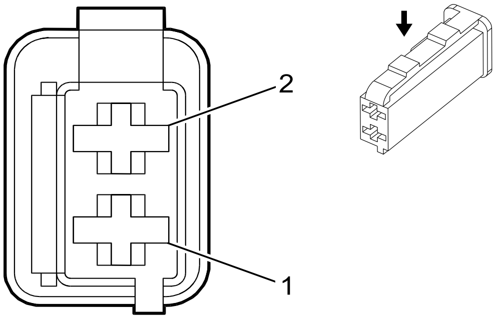
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E63D Flood Lamp - Driver Door Handle (A31)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/YE | 7557 | LED Ambient Lighting Control 1 | I | — |
| 2 | 0.35 | BK | 1150 | Ground | I | — |

# E63P Flood Lamp - Passenger Door Handle (A31)



2339593

## Connector Part Information

Harness Type: Passenger Door Trim
OEM Connector: 13670097
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.6 Timer Series (BK)

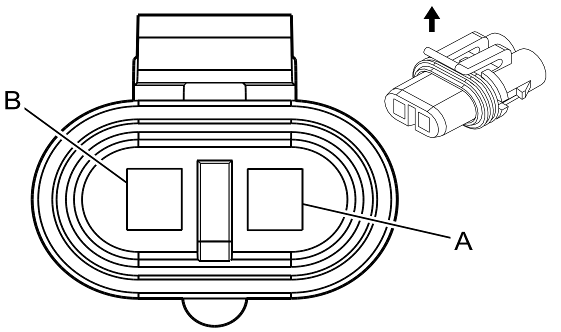
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E63P Flood Lamp - Passenger Door Handle (A31)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/YE | 7557 | LED Ambient Lighting Control 1 | I | — |
| 2 | 0.35 | BK | 1250 | Ground | I | — |

# E91 Air Dryer Valve Heater (JPY)



646148

## Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 1673790C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

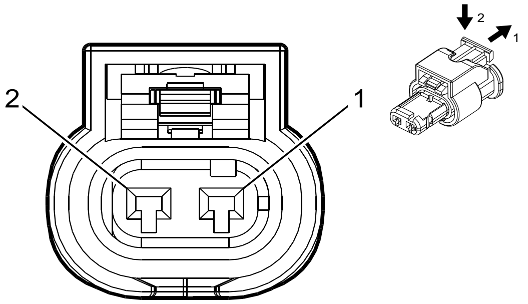
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## E91 Air Dryer Valve Heater (JPY)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 1 | VT/GY | 139 | Run/Crank Ignition 1 Voltage | I | — |
| B | 1 | BK | 139 | Run/Crank Ignition 1 Voltage | I | — |

# F101 Passenger Instrument Panel Air Bag



2698576

## Connector Part Information

Harness Type: Passenger Instrument Panel Air Bag
OEM Connector: 13863037
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCP Series, Sealed (YE)

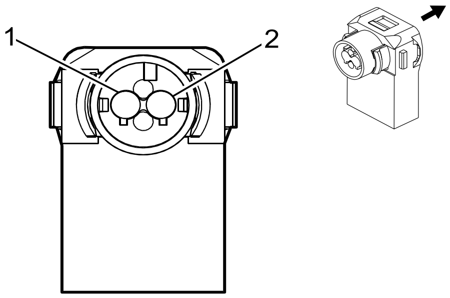
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## F101 Passenger Instrument Panel Air Bag

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | .35 | YE/OG | 3025 | Passenger IP Module Stage 1 High Control | I | — |
| 2 | .35 | OG/WH | 3024 | Passenger IP Module Stage 1 Low Control | I | — |

# F112D Seat Belt Retractor Pretensioner - Driver (Crew Cab)



4241364

## Connector Part Information

Harness Type: Body
OEM Connector: 33345778
Service Connector: 19355490
Description: 2-Way F ABX-5 Series (PU with YE Cover)

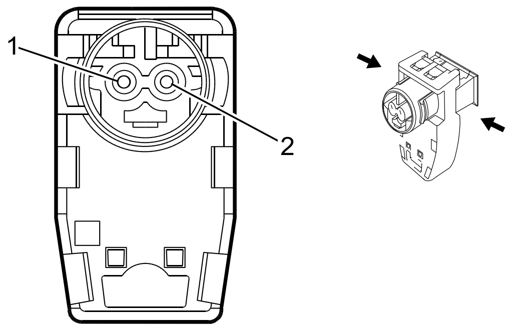
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### F112D Seat Belt Retractor Pretensioner - Driver (Crew Cab)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | RD | 3477 | Driver Seat Belt Retractor Pretensioner High Control | I | — |
| 2 | 0.5 | GY | 3478 | Driver Seat Belt Retractor Pretensioner Low Control | I | — |

# F112D Seat Belt Retractor Pretensioner - Driver (Standard Cab)



2368877

## Connector Part Information

Harness Type: Body
OEM Connector: 33512202
Service Connector: 19355492
Description: 2-Way F 0.64 Series, Sealed (BK with YE Cover)

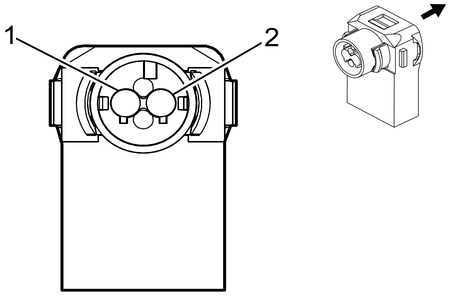
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## F112D Seat Belt Retractor Pretensioner - Driver (Standard Cab)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | RD | 3477 | Driver Seat Belt Retractor Pretensioner High Control | I | — |
| 2 | 0.5 | GY | 3478 | Driver Seat Belt Retractor Pretensioner Low Control | I | — |

## F112P Seat Belt Retractor Pretensioner - Passenger (Crew Cab)



4241364

### Connector Part Information

Harness Type: Body
OEM Connector: 33345778
Service Connector: 19355490
Description: 2-Way F ABX-5 Series (PU with YE Cover)

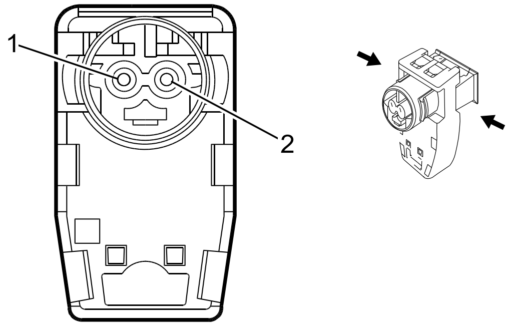
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### F112P Seat Belt Retractor Pretensioner - Passenger (Crew Cab)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | L-GN | 3475 | Passenger Seat Belt Retractor Pretensioner High Control | I | — |
| 2 | 0.5 | WH | 3476 | Passenger Seat Belt Retractor Pretensioner Low Control | I | — |

# F112P Seat Belt Retractor Pretensioner - Passenger (Standard Cab)



2368877

## Connector Part Information

Harness Type: Body
OEM Connector: 33512202
Service Connector: 19355492
Description: 2-Way F 0.64 Series, Sealed (BK with YE Cover)

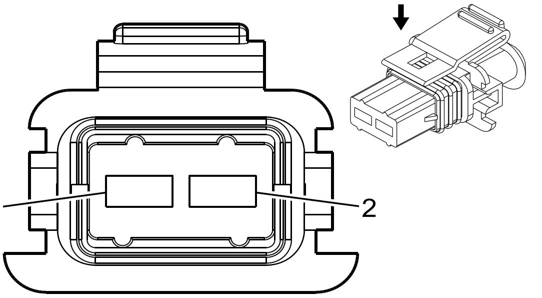
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### F112P Seat Belt Retractor Pretensioner - Passenger (Standard Cab)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | L-GN | 3475 | Passenger Seat Belt Retractor Pretensioner High Control | I | — |
| 2 | 0.5 | WH | 3476 | Passenger Seat Belt Retractor Pretensioner Low Control | I | — |

# G13 Generator



1522871

## Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 12186308
Service Connector: 13585849
Description: 2-Way F Junior Power Timer Series, Sealed (BK)

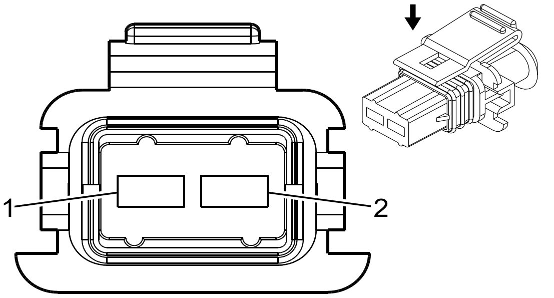
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## G13 Generator

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BN | 25 | Charge Indicator Control | I | — |
| 2 | 0.5 | GY | 23 | Generator Field Duty Cycle Signal | I | — |

# G13E Generator - Auxiliary (KHB)



1522871

## Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 12186308
Service Connector: 13585849
Description: 2-Way F Junior Power Timer Series, Sealed (BK)

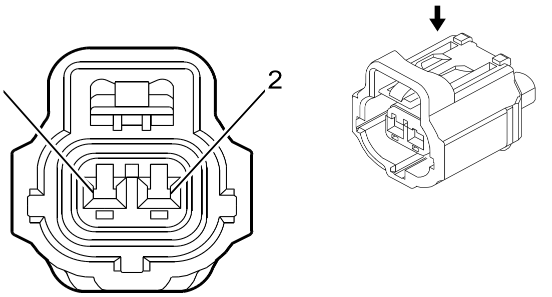
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## G13E Generator - Auxiliary (KHB)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BN | 25 | Charge Indicator Control | I | — |
| 2 | — | — | — | Not Occupied | — | — |

# G24 Windshield Washer Pump



4975439

## Connector Part Information

Harness Type: Body
OEM Connector: 15368658
Service Connector: 19370826
Description: 2-Way F SSC Series, Sealed (BK)

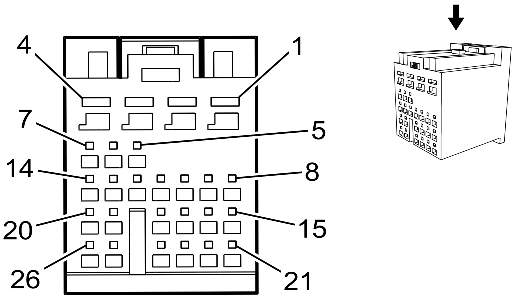
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-33 (YE) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## G24 Windshield Washer Pump

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | GY/VT | 228 | Windshield Washer Pump Control | I | — |
| 2 | 0.75 | BK | 1050 | Ground | I | — |

## K9 Body Control Module X1



2282907

### Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13943345
Service Connector: 13582966
Description: 26-Way F 0.64, 2.8 Series (NA)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13582297 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |
| II | 13587507 | J-35616-35 (VT) | J-38125-12A | SNAC-A061T-M2.8 | Delphi 20 | C | A |
| III | 13587507 | J-35616-35 (VT) | J-38125-12A | SNAC-A061T-M2.8 | Delphi 20 | E | A |

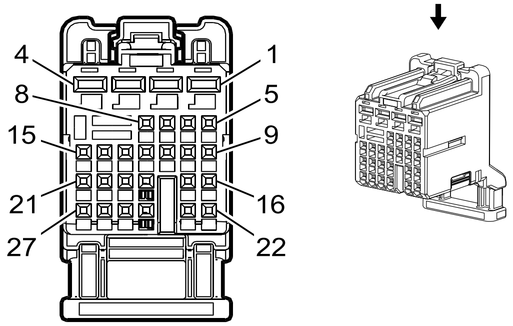
### K9 Body Control Module X1

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 1850 | Ground | III | — |
| 2 | 0.75 | RD/D-BU | 2540 | Battery Positive Voltage | III | — |
| 3 | 1 | RD/GY | 2140 | Battery Positive Voltage | II | — |
| 4 | 0.75 | RD/BN | 2240 | Battery Positive Voltage | III | — |
| 5 | 0.5 | WH | 6816 | Indicator Dimming Control | I | — |
| 6 | — | — | — | Not Occupied | — | — |
| 7 | 0.35 | BK/YE | 5005 | Instrument Panel Lamp Dimmer Switch Low Reference | I | — |
| 8 - 9 | — | — | — | Not Occupied | — | — |
| 10 | 0.5 | D-BU/VT | 1134 | Park Brake Switch Signal | I | — |
| 11 | 0.35 | L-GN/BN | 306 | Headlamp Switch Headlamps Off Signal Control | I | — |
| 12 | — | — | — | Not Occupied | — | — |
| 13 | 0.35 | D-BU/RD | 1688 | 5V Reference | I | — |
| 14 | 0.35 | GY/L-GN | 328 | Interior Lamp Defeat Switch Signal | I | — |
| 15 | 0.35 | D-BU/GY | 192 | Front Fog Lamp Switch Signal | I | — |
| 16 | 0.35 | WH/VT | 103 | Headlamp Switch On Signal | I | — |
| 17 - 18 | — | — | — | Not Occupied | — | — |
| 19 | 0.35 | BK/L-GN | 552 | Sensor Low Reference | I | — |

## K9 Body Control Module X1 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 20 | — | — | — | Not Occupied | — | — |
| 21 | 0.35 | GY | 728 | Security Indicator Control | I | — |
| 22 | 0.35 | L-GN/GY | 13 | Headlamp Switch Park Lamp Signal | I | — |
| 23 | 0.5 | VT/L-GN | 7558 | LED Ambient Lighting Control 2 | I | — |
| 24 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | — |
| 25 | 0.5 | D-BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | — |
| 26 | 0.35 | D-BU/WH | 3275 | Remote Function Actuator Receive Signal | I | — |

## K9 Body Control Module X2



2180237

### Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13943361
Service Connector: 13576637
Description: 27-Way F 0.64, 2.8 Series (L-BU)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13582297 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |
| II | 13587507 | J-35616-35 (VT) | J-38125-12A | SNAC-A061T-M2.8 | Delphi 20 | E | A |

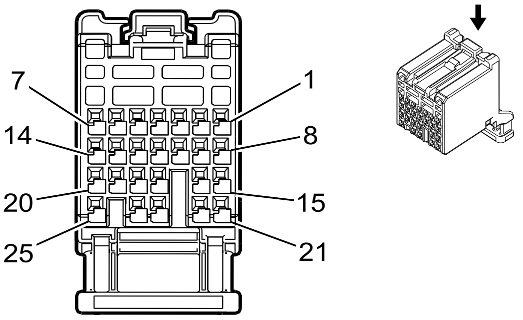
### K9 Body Control Module X2

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | RD/WH | 2740 | Battery Positive Voltage | II | — |
| 2 | 0.75 | BK | 1850 | Ground | II | — |
| 3 | 0.75 | RD/BN | 2940 | Battery Positive Voltage | II | — |
| 4 | 0.75 | RD/VT | 4040 | Battery Positive Voltage | II | — |
| 5 | — | — | — | Not Occupied | — | — |
| 6 | 0.35 | GY | 5697 | Child Lockout Indicator Control | I | — |
| 7 | 0.35 | WH/L-GN | 526 | Stop Lamp Switch Signal | I | — |
| 8 | 0.5 | YE | 6817 | LED Backlight Dimming Control | I | — |
| 9 | 0.35 | YE/GY | 44 | Instrument Panel Lamp Dimmer Switch Signal | I | — |
| 10 | 0.35 | WH/D-BU | 278 | Ambient Light Sensor Signal | I | — |
| 11 - 12 | — | — | — | Not Occupied | — | — |
| 13 | 0.35 | GY/RD | 598 | 5V Reference | I | — |
| 14 | 0.35 | D-BU/VT | 1788 | Traction Control Switch Signal 1 | I | — |
| 15 | 0.35 | BN/WH | 781 | Driver Door Lock Switch Unlock Signal | I | — |
| 16 | 0.35 | GY | 3273 | Remote Function Actuator Low Reference | I | — |
| 17 | — | — | — | Not Occupied | — | — |
| 18 | 0.5 | GY | 158 | Cargo Lamp Switch Signal | I | — |
| 19 | 0.35 | BN/YE | 780 | Driver Door Lock Switch Lock Signal | I | — |
| 20 | 0.5 | WH/D-BU | 3691 | Trailer Brake Apply Signal | I | — |

## K9 Body Control Module X2 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 21 | 0.5 | L-GN/GY | 6135 | Local Interconnect Network Serial Data Bus 4 | I | — |
| 22 - 24 | — | — | — | Not Occupied | — | — |
| 25 | 0.35 | GY/WH | 3272 | Remote Function Actuator Control | I | — |
| 26 | 0.35 | L-GN/WH | 111 | Hazard Switch Signal | I | — |
| 27 | 0.35 | YE/L-GN | 3274 | Remote Function Actuator Transmit Signal | I | — |

# K9 Body Control Module X3



3468989

## Connector Part Information

Harness Type: Steering Column
OEM Connector: 13582968
Service Connector: Service by Harness - See Part Catalog
Description: 25-Way F 0.64 Series (GN)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

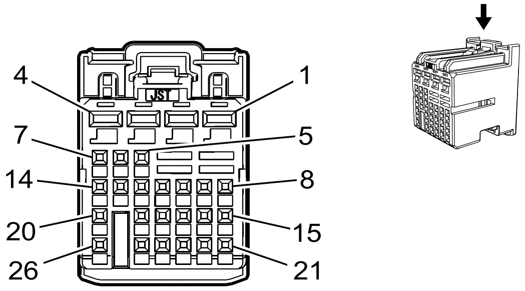
## K9 Body Control Module X3

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN/GY | 3277 | Vehicle Anti-Theft System Immobilizer Low Reference | I | — |
| 2 | 0.5 | GN/VT | 7533 | Local Interconnect Network Serial Data Bus 11 | I | — |
| 3 | 0.35 | GY/BK | 3276 | Vehicle Anti-Theft System Immobilizer Control | I | — |
| 4 | 0.35 | WH/RD | 1444 | 12V Reference | I | — |
| 5 | 0.5 | VT/YE | 4 | Accessory Ignition Voltage | I | — |
| 6 | 0.5 | VT/BK | 3 | Run/Crank Ignition 1 Voltage | I | — |
| 7 - 8 | — | — | — | Not Occupied | — | — |
| 9 | 0.35 | BN/GN | 1884 | Cruise Control Set/Coast/Resume/Accelerate Switch Signal | I | — |
| 10 | 0.35 | BK/GY | 6009 | Windshield Wiper Switch Low Reference | I | — |
| 11 | 0.35 | WH | 524 | Headlamp Dimmer Switch High Beam Signal | I | — |
| 12 | 0.35 | WH/GN | 663 | Hazard Switch Left Turn Signal | I | — |
| 13 | 0.35 | YE/BU | 1714 | Windshield Wiper Switch Low Signal | I | — |
| 14 | 0.35 | BU/GY | 553 | Shift Select Switch Performance Signal | I | — |
| 15 | 0.5 | WH/VT | 1020 | Off/Run/Crank Ignition Voltage | I | — |
| 16 | 0.35 | GY/GN | 5737 | Adaptive Cruise Control Gap Up/Down Switch Signal | I | — |
| 17 | 0.35 | YE/BN | 307 | Headlamp Switch Flash To Pass Signal | I | — |
| 18 | 0.35 | GN/WH | 3287 | Horn Switch Signal | I | — |
| 19 | 0.5 | OG | 7527 | Local Interconnect Network Serial Data Bus 5 | I | — |

## K9 Body Control Module X3 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 20 | 0.35 | GY | 1715 | Windshield Wiper Switch High Signal | I | — |
| 21 | 0.35 | VT/YE | 5526 | Tap Up/Tap Down Switch Signal | I | — |
| 22 | 0.5 | WH/BK | 1073 | Ignition Key Resistor Signal | I | — |
| 23 | — | — | — | Not Occupied | — | — |
| 24 | 0.35 | VT/BU | 664 | Hazard Switch Right Turn Signal | I | — |
| 25 | 0.35 | WH/BK | 94 | Windshield Washer Switch Signal | I | — |

## K9 Body Control Module X4



3240145

### Connector Part Information

Harness Type: Body
OEM Connector: 13962485
Service Connector: 13587579
Description: 26-Way F 0.64, 2.8 Series (BK)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13582297 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |
| II | 13582298 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |
| III | 13587507 | J-35616-35 (VT) | J-38125-12A | SNAC-A061T-M2.8 | Delphi 20 | E | A |

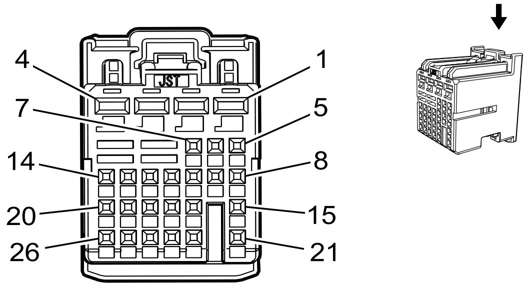
### K9 Body Control Module X4

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | YE | 712 | Left Headlamp Low Beam Control | III | — |
| 2 | 0.75 | YE | 312 | Right Headlamp Low Beam Control | III | — |
| 3 | 0.75 | L-GN/VT | 1315 | Right Front Turn Signal Lamp Control | III | — |
| 4 - 10 | — | — | — | Not Occupied | — | — |
| 11 | 0.5 | VT/WH | 5065 | Stop Lamp Relay Coil Control | I | — |
| 12 | 0.35 | GY/VT | 755 | RAP Relay Coil Control | I | — |
| 13 | — | — | — | Not Occupied | — | — |
| 14 | 0.35 | BN/GY | 2268 | Windshield Washer Relay Control | I | — |
| 15 | 0.35 | L-GN/VT | 5199 | Run/Crank Relay Coil Control | I | — |
| 16 | 0.35 | GY | 91 | Windshield Wiper Motor Relay Coil Control | I | — |
| 17 | 0.5 | BN/L-GN | 196 | Windshield Wiper Motor Park Switch Signal | I | — |
| 18 - 19 | — | — | — | Not Occupied | — | — |
| 20 | 0.5 | RD/YE | 2340 | Battery Positive Voltage | I | — |
| 21 | 0.5 | YE | 5530 | Hood Open Switch Signal | I | — |
| 22 | 0.35 | VT/YE | 5985 | Accessory Wakeup Serial Data | I | — |
| 23 | 0.5 | WH/D-BU | 5986 | Serial Data Communication Enable | I | — |

## K9 Body Control Module X4 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 24 | 0.5 | BN/L-GN | 109 | Hood Ajar Switch Signal | I | — |
| 25 | 0.5 | L-GN/YE | 2081 | Exhaust Brake Switch Control | I | — |
| 26 | 0.75 | BK/WH | 451 | Signal Ground | II | — |

## K9 Body Control Module X5



3240146

### Connector Part Information

Harness Type: Body
OEM Connector: 13962299
Service Connector: 13587577
Description: 26-Way F 0.64, 2.8 Series (BN)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13582297 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |
| II | 13582298 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |
| III | 13587507 | J-35616-35 (VT) | J-38125-12A | SNAC-A061T-M2.8 | Delphi 20 | E | A |

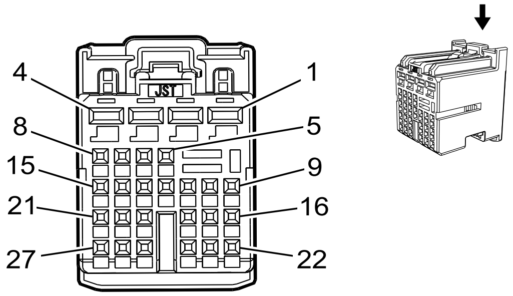
### K9 Body Control Module X5

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | — | — | — | Not Occupied | — | — |
| 2 | 0.75 | D-BU/WH | 1314 | Left Front Turn Signal Lamp Control | III | — |
| 3 | 0.75 | RD/L-GN | 5140 | Battery Positive Voltage | III | — |
| 4 | 0.75 | RD/WH | 3440 | Battery Positive Voltage | III | — |
| 5 - 7 | — | — | — | Not Occupied | — | — |
| 8 | 0.35 | D-BU/WH | 5186 | Left Trailer Turn Signal Lamp Control | I | — |
| 9 | — | — | — | Not Occupied | — | — |
| 10 | 0.5 | BN | 1317 | Fog Lamp Relay Control | I | — |
| 11 | — | — | — | Not Occupied | — | — |
| 12 | 0.35 | WH/D-BU | 6311 | Cruise/ETC/TCC Brake Signal | I | — |
| 13 | — | — | — | Not Occupied | — | — |
| 14 | 0.35 | VT/BN | 300 | Run Ignition 3 Voltage | I | — |
| 15 | 0.35 | L-GN/WH | 3438 | Exhaust Brake Switch Signal | I | — |
| 16 | 0.35 | VT/YE | 3267 | Child Security Lock Relay Control | I | — |
| 17 | 0.35 | YE/GY | 5187 | Right Trailer Turn Signal Lamp Control | I | — |
| 18 | 0.35 | BN/VT | 1969 | Headlamp High Beam Relay Control | I | — |
| 19 | 0.35 | BN/WH | 28 | Horn Relay Control | I | — |

## K9 Body Control Module X5 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 20 | 0.75 | BN/L-GN | 9950 | — | II | — |
| 21 | 0.75 | YE/D-BU | 9960 | — | II | — |
| 22 | 0.35 | D-BU | 45 | Park Lamp Relay Control | I | — |
| 23 | — | — | — | Not Occupied | — | — |
| 24 | 0.35 | WH/VT | 860 | Front Windshield Wiper Switch High Signal | I | — |
| 25 | — | — | — | Not Occupied | — | — |
| 26 | 0.35 | D-BU/BN | 38 | Backup Lamp Relay Control | I | — |

# K9 Body Control Module X6



3240147

## Connector Part Information

Harness Type: Body
OEM Connector: 13962300
Service Connector: 13587576
Description: 27-Way F 0.64, 2.8 Series (L-PU)

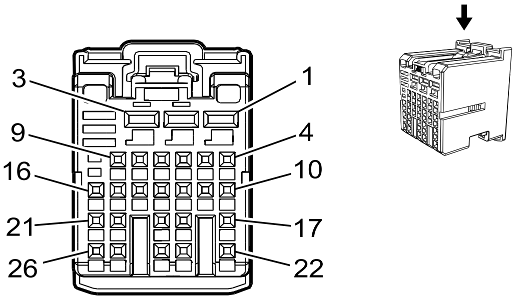
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575789 | J-35616-35 (VT) | J-38125-12A | SNAC-A061T-M2.8 | Delphi 20 | C | A |
| II | 13582297 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |
| III | 13587507 | J-35616-35 (VT) | J-38125-12A | SNAC-A061T-M2.8 | Delphi 20 | E | A |

## K9 Body Control Module X6

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | D-BU/WH | 195 | Door Lock Control | I | — |
| 2 | 1.5 | GY/L-GN | 3271 | Door Lock Control 2 | I | — |
| 3 | 1.5 | BK | 1850 | Ground | I | — |
| 4 | 1.5<br>0.75 | BN/YE<br>BN/YE | 294<br>294 | Door Lock Actuator Unlock Control<br>Door Lock Actuator Unlock Control | I<br>III | CREW CAB 43<br>STANDARD CAB 03 |
| 5 | — | — | — | Not Occupied | — | — |
| 6 | 0.35 | D-BU/VT | 1124 | Door Lock Key Switch Unlock Signal | II | — |
| 7 - 8 | — | — | — | Not Occupied | — | — |
| 9 | 0.5 | L-GN/D-BU | 6133 | Local Interconnect Network Serial Data Bus 2 | II | — |
| 10 | 0.5 | L-GN/YE | 6134 | Local Interconnect Network Serial Data Bus 3 | II | — |
| 11 - 20 | — | — | — | Not Occupied | — | — |
| 21 | 0.35 | WH/VT | 3270 | Driver Door Lock Motor Status Signal | II | — |
| 22 - 23 | — | — | — | Not Occupied | — | — |
| 24 | 0.5 | D-BU | 2500 | High Speed GMLAN Serial Data (+) 1 | II | — |
| 25 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | II | — |
| 26 | 0.5 | BN/WH | 1429 | Standing Lamp Relay Control | II | — |
| 27 | 0.35 | GY | 747 | Left Rear Door Ajar Switch Signal | II | — |

# K9 Body Control Module X7



3240144

## Connector Part Information

Harness Type: Body
OEM Connector: 13962301
Service Connector: 13587578
Description: 26-Way F 0.64, 2.8 Series (L-GY)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13582297 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |
| II | 13587507 | J-35616-35 (VT) | J-38125-12A | SNAC-A061T-M2.8 | Delphi 20 | E | A |

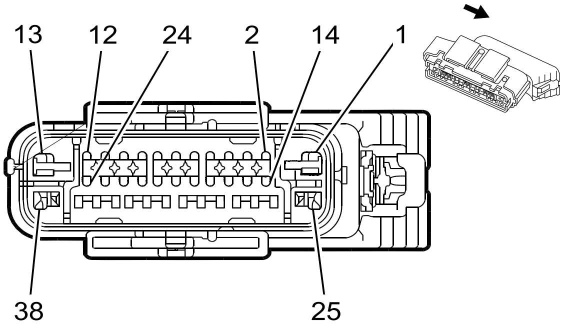
## K9 Body Control Module X7

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | GY | 157 | Interior Lamp Control | II | — |
| 2 | — | — | — | Not Occupied | — | — |
| 3 | 0.75 | WH/BN | 6815 | Inadvertent Power Control | II | — |
| 4 - 5 | — | — | — | Not Occupied | — | — |
| 6 | 0.35 | YE/WH | 816 | Brake Transmission Shift Interlock Solenoid Control | I | — |
| 7 - 8 | — | — | — | Not Occupied | — | — |
| 9 | 0.5 | YE | 6817 | LED Backlight Dimming Control | I | — |
| 10 | 0.35 | D-BU/BN | 7547 | Security Lock Relay Control | I | — |
| 11 | 0.35 | GY | 748 | Right Rear Door Ajar Switch Signal | I | — |
| 12 | 0.35 | BN/WH | 3269 | Child Security Lock Motor Status Signal Left Rear | I | — |
| 13 | — | — | — | Not Occupied | — | — |
| 14 | 0.35 | GY | 746 | Right Front Door Ajar Switch Signal | I | — |
| 15 | 0.35 | YE/BN | 3265 | Child Security Lock Switch Signal | I | — |
| 16 | 0.5 | WH/D-BU | 3691 | Trailer Brake Apply Signal | I | — |
| 17 | — | — | — | Not Occupied | — | — |
| 18 | 0.35 | GY/BK | 3268 | Child Security Lock Motor Status Signal Right Rear | I | — |
| 19 | 0.35 | GY | 156 | Courtesy Lamp Switch Signal | I | — |

## K9 Body Control Module X7 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 20 | — | — | — | Not Occupied | — | — |
| 21 | 0.35 | YE/VT | 244 | Passenger Door Lock Switch Lock Control | I | — |
| 22 | 0.35 | WH/YE | 7557 | LED Ambient Lighting Control 1 | I | — |
| 23 | 0.5 | L-GN | 5060 | Low Speed GMLAN Serial Data | I | — |
| 24 | 0.35 | BN/VT | 245 | Passenger Door Lock Switch Unlock Control | I | — |
| 25 | 0.35<br>0.35 | L-GN<br>GY | 4512<br>745 | Wireless Charging System Charge Indicator Control<br>Left Front Door Ajar Switch Signal | I<br>I | CREW CAB 43<br>STANDARD CAB 03 |
| 26 | — | — | — | Not Occupied | — | — |

# K17 Electronic Brake Control Module



1986146

## Connector Part Information

Harness Type: Chassis
OEM Connector: 4089378C1
Service Connector: Service by Harness - See Part Catalog
Description: 38-Way F 0.64, 2.8, 6.3 Series, Sealed (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Available | Not Available | Not Available | Not Available |

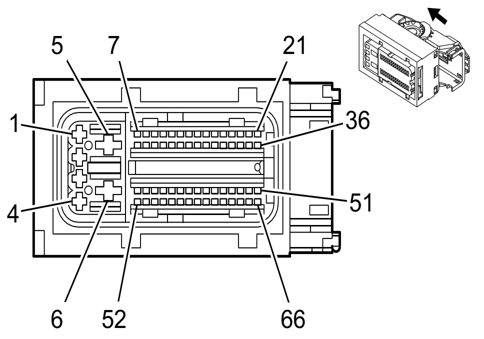
## K17 Electronic Brake Control Module

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 5 | RD/YE | 1042 | Battery Positive Voltage | I | — |
| 2 - 3 | — | — | — | Not Occupied | — | — |
| 4 | 0.75 | GY | 90 | Right Mirror Motor Left Control | I | — |
| 5 | — | — | — | Not Occupied | — | — |
| 6 | 0.75 | GY/BN | 7065 | Wheel Speed Sensor Control Right Front | I | — |
| 7 - 12 | — | — | — | Not Occupied | — | — |
| 13 | 3 | BK | 2150 | Ground | I | — |
| 14 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | — |
| 15 - 17 | — | — | — | Not Occupied | — | — |
| 18 | 0.75 | YE | 872 | Wheel Speed Sensor Signal Right Front | I | — |
| 19 | 0.75 | VT | 882 | Wheel Speed Sensor Signal Right Rear | I | — |
| 20 | 0.75 | GY/BK | 7127 | Wheel Speed Sensor Control Left Rear | I | — |
| 21 | 0.75 | GY | 830 | Wheel Speed Sensor Signal Left Front | I | — |
| 22 - 24 | — | — | — | Not Occupied | — | — |
| 25 | 2 | RD/VT | 1940 | Battery Positive Voltage | I | — |
| 26 | 0.5 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | — |
| 27 | — | — | — | Not Occupied | — | — |
| 28 | 0.75 | GY | 90 | Right Mirror Motor Left Control | I | — |
| 29 | 0.75 | GY | 90 | Right Mirror Motor Left Control | I | — |
| 30 | — | — | — | Not Occupied | — | — |
| 31 | 0.75 | WH/BU | 7128 | Wheel Speed Sensor Control Right Rear | I | — |

## K17 Electronic Brake Control Module (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 32 | — | — | — | Not Occupied | — | — |
| 33 | 0.75 | BU | 884 | Wheel Speed Sensor Signal Left Rear | I | — |
| 34 | 0.75 | GY/WH | 7064 | Wheel Speed Sensor Control Left Front | I | — |
| 35 | 0.75 | WH/BU | 5986 | Serial Data Communication Enable | I | — |
| 36 - 37 | — | — | — | Not Occupied | — | — |
| 38 | 1.5 | BK | 2150 | Ground | I | — |

# K20 Engine Control Module X1



2498868

## Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 35059716
Service Connector: 19370822
Description: 66-Way F 0.64 MTS-B, 2.8 ATS, 6.3 Ducon Series, Sealed (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575360 | J-35616-4A (PU) | J-38125-36 | 4-964286-1 | Lear 16 | E | 1 |
| II | 13575862 | J-35616-64B (LT BU) | J-38125-12A | 1719532-5 | Lear 7 | J | J |
| III | 13584448 | J-35616-64B (LT BU) | J-38125-12A | 1719532-5 | Lear 7 | J | J |
| IV | 13584528 | J-35616-42 (RD) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| V | 19369848 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

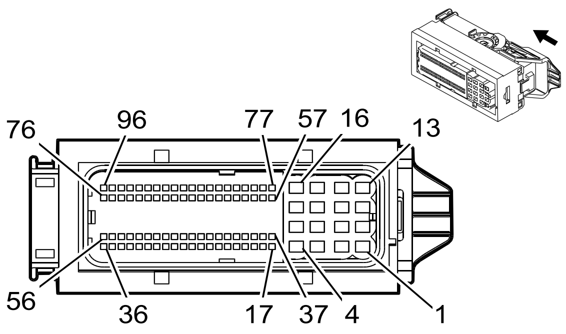
## K20 Engine Control Module X1

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | VT/D-BU | 5290 | Powertrain Main Relay Fused Supply 1 | I | — |
| 2 | 0.5 | VT/D-BU | 5290 | Powertrain Main Relay Fused Supply 1 | I | — |
| 3 | — | — | — | Not Occupied | — | — |
| 4 | 0.5 | RD/BN | 440 | Battery Positive Voltage | I | — |
| 5 | 2.5 | VT/D-BU | 5290 | Powertrain Main Relay Fused Supply 1 | IV | — |
| 6 | 4 | BK/WH | 451 | Signal Ground | V | — |
| 7 | 0.5 | VT/YE | 5985 | Accessory Wakeup Serial Data | III | — |
| 8 - 9 | — | — | — | Not Occupied | — | — |
| 10 | 0.5 | L-GN/WH | 492 | Mass Air Flow Sensor Signal | III | — |
| 11 | 0.5 | D-BU/GY | 636 | Outside Ambient Air Temperature Sensor Signal | III | — |
| 12 | — | — | — | Not Occupied | — | — |
| 13 | 0.5 | WH/RD | 1164 | Accelerator Pedal Position 5V Reference 1 | III | — |
| 14 | 0.5 | BN/RD | 1274 | Accelerator Pedal Position 5V Reference 2 | III | — |
| 15 | 0.5 | L-GN/WH | 1162 | Accelerator Pedal Position Signal 2 | III | — |

## K20 Engine Control Module X1 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 16 | 0.5 | BK/VT | 1272 | Accelerator Pedal Position Low Reference 2 | III | — |
| 17 - 20 | — | — | — | Not Occupied | — | — |
| 21 | 0.5 | YE | 2928 | Fuel Metering Valve High Control | III | — |
| 22 | 0.5 | VT/L-GN | 439 | Run/Crank Ignition 1 Voltage | III | — |
| 23 | — | — | — | Not Occupied | — | — |
| 24 | 0.5 | WH/D-BU | 6311 | Cruise/ETC/TCC Brake Signal | III | — |
| 25 | 0.5 | BN/GY | 4008 | Humidity Sensor Signal | III | — |
| 26 | 0.5 | BK/D-BU | 61 | Outside Ambient Temperature Sensor Low Reference | III | — |
| 27 | 0.5 | BK/D-BU | 1271 | Accelerator Pedal Position Low Reference 1 | III | — |
| 28 | 0.5 | YE/WH | 1161 | Accelerator Pedal Position Signal 1 | III | — |
| 29 - 32 | — | — | — | Not Occupied | — | — |
| 33 | 0.5 | BN/WH | 419 | Check Engine Indicator Control | III | — |
| 34 | 0.5 | L-GN/BN | 507 | Wait To Start Indicator Control | III | — |
| 35 | 0.5 | WH/GY | 459 | A/C Compressor Clutch Relay Control | III | — |
| 36 | 0.5 | BN/BK | 2929 | Fuel Metering Valve Low Control | III | — |
| 37 - 38 | — | — | — | Not Occupied | — | — |
| 39 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | III | — |
| 40 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | II | — |
| 41 - 42 | — | — | — | Not Occupied | — | — |
| 43 | 0.5 | BK/BN | 5360 | Brake Apply Sensor Low Reference | III | — |
| 44 | 0.5 | WH | 5359 | Brake Apply Sensor Control | III | — |
| 45 | 0.5 | WH/D-BU | 6289 | Induction Air Temperature Sensor Signal | III | — |
| 46 | 0.5 | BN/RD | 2700 | A/C Pressure Sensor 5V Reference | III | — |
| 47 | 0.5 | L-GN | 380 | A/C Refrigerant Pressure Sensor Signal | III | — |
| 48 | 0.5 | BK/BN | 5514 | A/C Refrigerant Pressure Sensor Low Reference | III | — |
| 49 | — | — | — | Not Occupied | — | — |
| 50 | 0.5 | WH/BK | 2366 | Cooling Fan Control Relay Speed Signal | III | — |
| 51 | 0.5 | YE | 5991 | Powertrain Relay Coil Control | III | — |
| 52 - 53 | — | — | — | Not Occupied | — | — |
| 54 | 0.5 | D-BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | III | — |
| 55 | 0.5 | D-BU | 2500 | High Speed GMLAN Serial Data (+) 1 | II | — |
| 56 - 58 | — | — | — | Not Occupied | — | — |
| 59 | 0.5 | D-BU/YE | 5361 | Brake Apply Sensor Signal | III | — |
| 60 | 0.5 | BK/VT | 2760 | Intake Air Temperature Sensor Low Reference | III | — |
| 61 - 63 | — | — | — | Not Occupied | — | — |
| 64 | 0.5 | YE/D-BU | 1465 | Secondary Fuel Pump Relay Control | III | — |
| 65 | 0.5 | YE/BK | 625 | Starter Enable Relay Control | III | — |
| 66 | 0.5 | L-GN/GY | 465 | Fuel Pump Primary Relay Control | III | — |

# K20 Engine Control Module X2



4115094

## Connector Part Information

Harness Type: Engine
OEM Connector: 12685985
Service Connector: 19370825
Description: 96-Way F 0.64 MTS-B, 2.8 ATS Series, Sealed (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13584448 | J-35616-64B (LT BU) | J-38125-12A | 1719532-5 | Lear 7 | J | J |
| II | 13584448 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| III | 13584530 | J-35616-4A (PU) | J-38125-36 | 4-964286-1 | Lear 16 | E | 1 |

## K20 Engine Control Module X2

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | VT/GN | 4806 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 6 | III | — |
| 2 | 0.75 | YE/GY | 4807 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 7 | III | — |
| 3 | 0.75 | GY/BU | 4804 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 4 | III | — |
| 4 | 0.75 | BN | 4801 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 1 | III | — |
| 5 | 0.75 | VT/GY | 4906 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 6 | III | — |
| 6 | 0.75 | WH/YE | 4907 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 7 | III | — |
| 7 | 0.75 | BU/WH | 4904 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4 | III | — |
| 8 | 0.75 | BN/WH | 4901 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1 | III | — |
| 9 | 0.75 | GN/GY | 4903 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3 | III | — |
| 10 | 0.75 | GY/WH | 4908 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 8 | III | — |

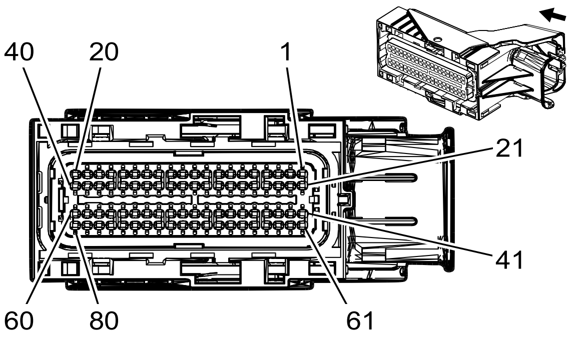
## K20 Engine Control Module X2 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 11 | 0.75 | GN/WH | 4905 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5 | III | — |
| 12 | 0.75 | BU/GY | 4902 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2 | III | — |
| 13 | 0.75 | GN | 4803 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 3 | III | — |
| 14 | 0.75 | GY | 4808 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 8 | III | — |
| 15 | 0.75 | WH/GN | 4805 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 5 | III | — |
| 16 | 0.75 | BU | 4802 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 2 | III | — |
| 17 | 0.5 | BK/VT | 2755 | Oil Pressure Sensor Low Reference | II | — |
| 18 | 0.5 | YE/BN | 331 | Oil Pressure Sensor Signal | II | — |
| 19 | 0.5 | WH/RD | 2705 | Oil Pressure Sensor 5V Reference | II | — |
| 20 | 0.5 | BU/RD | 2702 | Exhaust Gas Recirculation 5V Reference 2 | II | — |
| 21 | 0.5 | BN/WH | 5763 | Exhaust Gas Recirculation Valve Sensor Signal | II | — |
| 22 | 0.5 | BK/BN | 2753 | Exhaust Gas Recirculation Sensor Low Reference | II | — |
| 23 | — | — | — | Not Occupied | — | — |
| 24 | 0.5 | BN/YE | 2161 | Fuel Rail Pressure Sensor 2 Signal | II | — |
| 25 | — | — | — | Not Occupied | — | — |
| 26 | 0.5 | BN | 9348 | Induction Air Temperature Sensor 3 Signal | II | — |
| 27 - 29 | — | — | — | Not Occupied | — | — |
| 30 | 0.5 | BU | 410 | Engine Coolant Temperature Sensor Signal | II | — |
| 31 | 0.5 | BN | 25 | Charge Indicator Control | II | — |
| 32 - 36 | — | — | — | Not Occupied | — | — |
| 37 | 0.5 | BK/GN | 5301 | Camshaft Position Intake Sensor Low Reference 1 | II | — |
| 38 | 0.5 | YE/VT | 5275 | Camshaft Position Intake Sensor 1 | II | — |
| 39 | 0.5 | GY/BU | 5300 | Camshaft Position Intake Sensor Control 1 | II | — |
| 40 | 0.5 | VT/RD | 3652 | EGR Cooler Bypass Position Sensor 5V Reference | II | — |
| 41 | 0.5 | GN/GY | 3654 | EGR Cooler Bypass Position Sensor Signal | II | — |
| 42 | 0.5 | BK/BU | 3653 | EGR Cooler Bypass Position Sensor Low Reference | II | — |
| 43 | 0.5 | BK/BN | 2752 | Throttle Position Sensor Low Reference | II | — |
| 44 | 0.5 | BU/WH | 3630 | Throttle Position Sensor (SENT1) Signal | II | — |
| 45 | 0.5 | BN/RD | 2701 | Throttle Position Sensor 5V Reference | II | — |
| 46 - 49 | — | — | — | Not Occupied | — | — |
| 50 | 0.5 | BK/BN | 2761 | Coolant Temperature Sensor Low Reference | II | — |
| 51 | 0.5 | GY | 23 | Generator Field Duty Cycle Signal | II | — |
| 52 - 56 | — | — | — | Not Occupied | — | — |
| 57 | 0.5 | BK/GN | 2919 | Fuel Rail Pressure Sensor Low Reference | II | — |
| 58 | 0.5 | BU/WH | 2918 | Fuel Rail Pressure Sensor Signal | II | — |
| 59 | 0.5 | BN/RD | 2917 | Fuel Rail Pressure Sensor 5V Reference | II | — |
| 60 | 0.5 | GY/RD | 2704 | Manifold Absolute Pressure Sensor 5V Reference | II | — |
| 61 | 0.5 | GN/WH | 432 | Manifold Absolute Pressure Sensor Signal | II | — |

## K20 Engine Control Module X2 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 62 | 0.5 | BK/GN | 469 | Manifold Absolute Pressure Sensor Low Reference | II | — |
| 63 - 68 | — | — | — | Not Occupied | — | — |
| 69 | 0.5 | BN/BU | 2926 | Hydrocarbon Injector High Control | II | — |
| 70 | — | — | — | Not Occupied | — | — |
| 71 | 0.5 | VT/BU | 6091 | Crankshaft Position Sensor Replicated Signal | II | — |
| 72 | 0.5 | VT/BN | 2927 | Hydrocarbon Injector Low Control | II | — |
| 73 | — | — | — | Not Occupied | — | — |
| 74 | 0.5 | YE | 581 | Throttle Actuator Control Open | II | — |
| 75 | 0.5 | BN/WH | 582 | Throttle Actuator Control Close | II | — |
| 76 | 0.75 | BK/YE | 2834 | Fuel Rail Pressure Solenoid Low Reference | I | — |
| 77 - 79 | — | — | — | Not Occupied | — | — |
| 80 | 0.5 | BN/RD | 7445 | Fuel Line Pressure Sensor 5V Reference | II | — |
| 81 | 0.5 | BU/WH | 7446 | Fuel Line Pressure Sensor Signal | II | — |
| 82 | 0.5 | BK/YE | 7447 | Fuel Line Pressure Sensor Low Reference | II | — |
| 83 | — | — | — | Not Occupied | — | — |
| 84 | 0.5 | BK/VT | 6272 | Crankshaft 60X Sensor Low Reference | II | — |
| 85 | 0.5 | GN | 6271 | Crankshaft 60X Sensor Signal | II | — |
| 86 | 0.5 | VT/BU | 6270 | Crankshaft 60X Sensor 5V Reference | II | — |
| 87 | 0.5 | BN/GN | 1174 | Oil Level Switch Signal | II | — |
| 88 - 90 | — | — | — | Not Occupied | — | — |
| 91 | 0.5 | BU/GN | 7071 | Heater Fuel Control | II | — |
| 92 | 0.5 | BN/VT | 3656 | EGR Cooler Bypass Motor Close Control | II | — |
| 93 | 0.5 | YE/GN | 3655 | EGR Cooler Bypass Motor Open Control | II | — |
| 94 | 0.5 | VT/BK | 5746 | Exhaust Gas Recirculation Valve Motor Low Signal | II | — |
| 95 | 0.5 | WH/VT | 5764 | Exhaust Gas Recirculation Valve Motor High Signal | II | — |
| 96 | 0.75 | BU/WH | 2530 | Fuel Rail Pressure Solenoid Control | I | — |

## K20 Engine Control Module X3



2474736

### Connector Part Information

- Harness Type: Engine Chassis
- OEM Connector: 13782479
- Service Connector: 13577545
- Description: 80-Way F MX123 Series, Sealed (BU)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575812 | J-35616-64B (LT BU) | J-38125-213 | Not Available | Not Available | Not Available | Not Available |

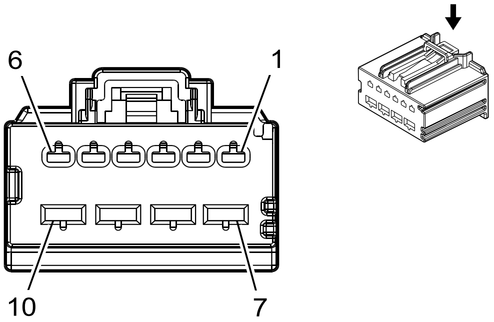
### K20 Engine Control Module X3

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BN | 3099 | DEF Dosing Valve High Control | I | — |
| 2 | — | — | — | Not Occupied | — | — |
| 3 | 0.5 | L-GN/D-BU | 3889 | DEF Power Module Relay Control | I | — |
| 4 - 11 | — | — | — | Not Occupied | — | — |
| 12 | 0.5 | YE/BK | 3682 | Charge Air Cooler Inlet Temperature Sensor Low Reference | I | — |
| 13 | 0.5 | YE/D-BU | 3680 | Charge Air Cooler Outlet Temperature Sensor Low Reference | I | — |
| 14 | 0.5 | BK/YE | 6275 | Exhaust Gas Recirculation Temperature Sensor 2 Low Reference | I | — |
| 15 | 0.5 | BK/D-BU | 6274 | Exhaust Gas Recirculation Temperature Sensor Low Reference | I | — |
| 16 | 0.5 | BK/VT | 3661 | Exhaust Gas Temperature Sensor 5 Low Reference | I | — |
| 17 | 0.5 | BK/GY | 3659 | Exhaust Gas Temperature Sensor 4 Low Reference | I | — |
| 18 | 0.5 | BK/L-GN | 3657 | Exhaust Gas Temperature Sensor 3 Low Reference | I | — |
| 19 | 0.5 | BK/D-BU | 6783 | Exhaust Gas Temperature Sensor 2 Low Reference | I | — |
| 20 | 0.5 | BK/BN | 6782 | Exhaust Gas Temperature Sensor 1 Low Reference | I | — |
| 21 | 0.75 | BN/WH | 3100 | DEF Dosing Valve Low Control | I | — |

## K20 Engine Control Module X3 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 22 - 24 | — | — | — | Not Occupied | — | — |
| 25 | 0.5 | WH/L-GN | 6142 | Power Take Off Engine Shutdown Signal | I | — |
| 26 - 27 | — | — | — | Not Occupied | — | — |
| 28 | 0.5 | WH/RD | 3201 | Throttle Inlet Absolute Pressure Sensor 5V Reference | I | — |
| 29 | 0.5 | BN/L-GN | 5266 | Ambient Air Pressure Sensor Signal | I | — |
| 30 - 31 | — | — | — | Not Occupied | — | — |
| 32 | 0.5 | L-GN | 3683 | Charge Air Cooler Inlet Temperature Sensor Signal | I | — |
| 33 | 0.5 | BN | 3681 | Charge Air Cooler Outlet Temperature Sensor Signal | I | — |
| 34 | 0.5 | YE/L-GN | 3236 | Exhaust Gas Recirculation Temperature Sensor 2 Signal | I | — |
| 35 | 0.5 | WH/BN | 3237 | Exhaust Gas Recirculation Temperature Sensor Signal | I | — |
| 36 | 0.5 | D-BU/GY | 3660 | Exhaust Gas Temperature Sensor 5 Signal | I | — |
| 37 | 0.5 | VT/BN | 3658 | Exhaust Gas Temperature Sensor 4 Signal | I | — |
| 38 | 0.5 | GY/L-GN | 5378 | Exhaust Gas Temperature Sensor 3 | I | — |
| 39 | 0.5 | D-BU/L-GN | 5377 | Exhaust Gas Temperature Sensor 2 | I | — |
| 40 | 0.5 | D-BU/WH | 5277 | Exhaust Gas Temperature Sensor 1 | I | — |
| 41 - 64 | — | — | — | Not Occupied | — | — |
| 65 | 0.5 | BK/BN | 6141 | Cooling Fan Speed Low Reference | I | — |
| 66 | 0.5 | D-BU/VT | 2364 | Cooling Fan Speed Signal | I | — |
| 67 | 0.5 | GY/RD | 2365 | Cooling Fan Speed 5V Reference | I | — |
| 68 | 0.5 | GY/BK | 3096 | Output Speed (Digital) Sensor 5V Reference | I | — |
| 69 | 0.5 | L-GN | 3098 | Output Speed (Digital) Signal | I | — |
| 70 | 0.5 | WH/BK | 3097 | Output Speed (Digital) Sensor Low Reference | I | — |
| 71 - 75 | — | — | — | Not Occupied | — | — |
| 76 | 0.5 | BK/YE | 6055 | Exhaust Pressure Sensor Low Reference 1 | I | — |
| 77 | 0.5 | D-BU | 6053 | Exhaust Pressure Sensor Signal 1 | I | — |
| 78 | 0.5 | WH/RD | 6054 | Exhaust Pressure Sensor 5V Reference 1 | I | — |
| 79 - 80 | — | — | — | Not Occupied | — | — |

# K29 Seat Heating Control Module X1 (KA1)



3791446

## Connector Part Information

Harness Type: Passenger Seat Cushion
OEM Connector: 31372-1000
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 1.5, 2.8 Series (BK)

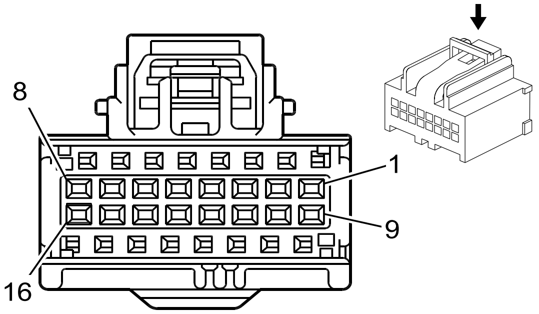
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## K29 Seat Heating Control Module X1 (KA1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | WH/BN | 2481 | Passenger Heated Back Element Control | I | — |
| 2 | 0.75 | BN/L-BU | 2479 | Passenger Heated Seat Element Control | I | — |
| 3 | 0.75 | GY/BK | 2480 | Passenger Heated Seat Element Low Reference | I | — |
| 4 | 0.75 | BN/BK | 2078 | Driver Heated Seat Element Low Reference | I | — |
| 5 | 0.75 | BN | 2432 | Driver Heated Back Element Control | I | — |
| 6 | 0.75 | BN/VT | 2077 | Driver Heated Seat Element Control | I | — |
| 7 | 0.75 | RD/L-GN | 6140 | Battery Positive Voltage | II | — |
| 8 | 0.75 | BK | 1250 | Ground | II | — |
| 9 | — | — | — | Not Occupied | — | — |
| 10 | 0.75 | RD/L-GN | 5140 | Battery Positive Voltage | II | — |

# K29 Seat Heating Control Module X2 (KA1)



1653409

## Connector Part Information

Harness Type: Passenger Seat Cushion
OEM Connector: 15136073
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 0.64 Kaizen Series (BK)

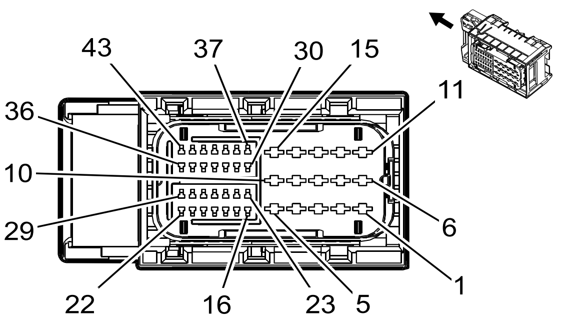
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## K29 Seat Heating Control Module X2 (KA1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BK/YE | 2080 | Driver Heated Seat NTC Low Reference | I | — |
| 2 | 0.5 | BK/GY | 2435 | Passenger Heated Seat NTC Low Reference | I | — |
| 3 | 0.5 | L-BU | 2425 | Driver Heated Back NTC Signal | I | — |
| 4 | 0.5 | WH/L-BU | 2436 | Passenger Heated Back NTC Signal | I | — |
| 5 | 0.5 | WH/GY | 2434 | Passenger Heated Seat NTC Signal | I | — |
| 6 | 0.5 | YE/GY | 2079 | Driver Heated Seat NTC Signal | I | — |
| 7 | — | — | — | Not Occupied | — | — |
| 8 | 0.35 | L-GN/L-BU | 6133 | Local Interconnect Network Serial Data Bus 2 | I | — |
| 9 - 11 | — | — | — | Not Occupied | — | — |
| 12 | 0.5 | BK/L-GN | 2482 | Passenger Heated Back NTC Low Reference | I | — |
| 13 - 16 | — | — | — | Not Occupied | — | — |

## K34 Glow Plug Control Module X2



3553744

### Connector Part Information

Harness Type: Engine
OEM Connector: 10023701
Service Connector: 13576417
Description: 43-Way F 1.2, 2.8 Series, Sealed (BK)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13576372 | J-35616-4A (PU) | J-38125-556 | Not Available | Not Available | Not Available | Not Available |
| II | 13580008 | J-35616-16 (LT GN) | J-38125-21 | Not Available | Not Available | Not Available | Not Available |

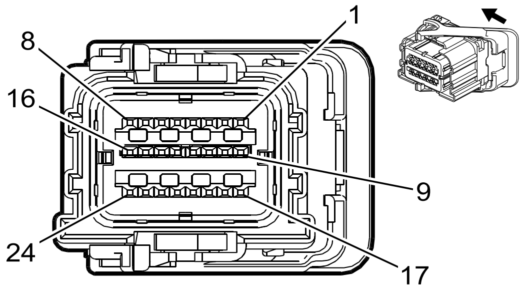
### K34 Glow Plug Control Module X2

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | — | — | — | Not Occupied | — | — |
| 2 | 2 | GY/YE | 1584 | Glow Plug Control 4 | I | — |
| 3 | 2 | GY/GN | 1583 | Glow Plug Control 3 | I | — |
| 4 | 2 | GY/BN | 1582 | Glow Plug Control 2 | I | — |
| 5 | 2 | GY/BU | 1581 | Glow Plug Control 1 | I | — |
| 6 - 9 | — | — | — | Not Occupied | — | — |
| 10 | 2 | BK | 550 | Ground | I | — |
| 11 | — | — | — | Not Occupied | — | — |
| 12 | 2 | GY/WH | 1585 | Glow Plug Control 5 | I | — |
| 13 | 2 | GY/VT | 1586 | Glow Plug Control 6 | I | — |
| 14 | 2 | WH/BK | 1587 | Glow Plug Control 7 | I | — |
| 15 | 2 | WH/BU | 1588 | Glow Plug Control 8 | I | — |
| 16 | 0.5 | BK | — | — | II | — |
| 17 | 0.5 | BK | — | — | II | — |
| 18 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | II | — |
| 19 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | II | — |
| 20 - 22 | — | — | — | Not Occupied | — | — |
| 23 | 0.5 | BK | — | — | II | — |
| 24 | 0.5 | BK | — | — | II | — |

## K34 Glow Plug Control Module X2 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 25 | 0.5 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | II | — |
| 26 | 0.5 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | II | — |
| 27 - 29 | — | — | — | Not Occupied | — | — |
| 30 | 0.5 | BK | — | — | II | — |
| 31 | 0.5 | BK | — | — | II | — |
| 32 | — | — | — | Not Occupied | — | — |
| 33 | 0.5 | VT/BK | 2139 | Run/Crank Ignition 1 Voltage | II | — |
| 34 - 36 | — | — | — | Not Occupied | — | — |
| 37 | 0.5 | BK | — | — | II | — |
| 38 | 0.5 | BK | — | — | II | — |
| 39 | — | — | — | Not Occupied | — | — |
| 40 | 0.5 | VT/YE | 443 | Accessory Ignition Voltage | II | — |
| 41 - 43 | — | — | — | Not Occupied | — | — |

# K36 Inflatable Restraint Sensing and Diagnostic Module X1



3240106

## Connector Part Information

Harness Type: Body
OEM Connector: 13887360
Service Connector: 19328755
Description: 24-Way F 0.64 Series, Sealed (YE)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19328872 | J-35616-64B (LT BU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| II | 19368490 | J-35616-64B (LT BU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |

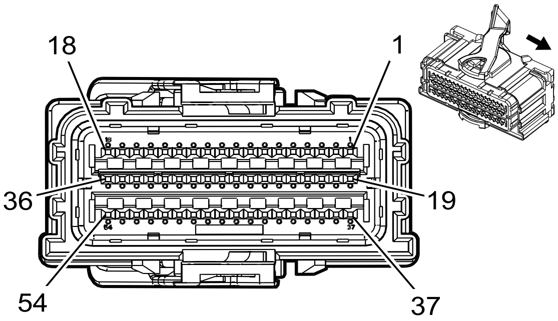
## K36 Inflatable Restraint Sensing and Diagnostic Module X1

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 2 | — | — | — | Not Occupied | — | — |
| 3 | 0.35 | BN/OG | 3020 | Steering Wheel Module Stage 1 Low Control | I | — |
| 4 | 0.35 | OG/VT | 3021 | Steering Wheel Module Stage 1 High Control | I | — |
| 5 | 0.35 | YE/OG | 3025 | Passenger IP Module Stage 1 High Control | I | — |
| 6 | 0.35 | OG/WH | 3024 | Passenger IP Module Stage 1 Low Control | I | — |
| 7 | 0.35 | OG/VT | 3026 | Passenger IP Module Stage 2 Low Control | I | — |
| 8 | 0.35 | GY/OG | 3027 | Passenger IP Module Stage 2 High Control | I | — |
| 9 | 0.5 | RD/L-GN | 4440 | Battery Positive Voltage | II | — |
| 10 | 0.35 | VT/WH | 5234 | Passenger Seat Belt Indicator Control | I | — |
| 11 | 0.35 | D-BU | 2307 | Passenger Air Bag On Indicator Control | I | — |
| 12 | 0.35 | L-GN | 2308 | Passenger Air Bag Off Indicator Control | I | — |
| 13 | 0.35 | VT/OG | 371 | Passenger IP Module Disable Switch Signal | I | — |
| 14 | 0.35 | D-BU/OG | 7328 | Passenger IP Module Disable Switch Low Reference | I | — |
| 15 | 0.5 | L-GN | 5060 | Low Speed GMLAN Serial Data | II | — |
| 16 | — | — | — | Not Occupied | — | — |
| 17 | 0.5 | WH/D-BU | 5986 | Serial Data Communication Enable | II | — |
| 18 | 0.5 | D-BU/YE | 6105 | High Speed GMLAN Serial Data (+) 2 | II | — |
| 19 | 0.75 | BK/WH | 2751 | Signal Ground | II | — |

## K36 Inflatable Restraint Sensing and Diagnostic Module X1 (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 20 | 0.5 | WH | 6106 | High Speed GMLAN Serial Data (-) 2 | II | — |
| 21 - 24 | — | — | — | Not Occupied | — | — |

## K36 Inflatable Restraint Sensing and Diagnostic Module X2



2817420

### Connector Part Information

Harness Type: Body
OEM Connector: 13944372
Service Connector: 19303770
Description: 54-Way F 0.64 Series, Sealed (YE)

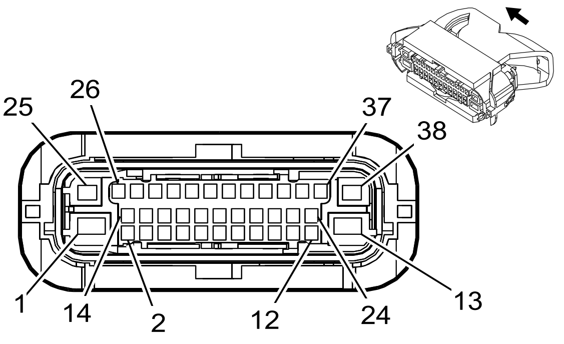
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19328872 | J-35616-64B (LT BU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| II | 19368490 | J-35616-64B (LT BU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |

### K36 Inflatable Restraint Sensing and Diagnostic Module X2

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 22 | — | — | — | Not Occupied | — | — |
| 23 | 0.5 | OG/GY | 6618 | Middle Front Discriminating Sensor Signal | II | — |
| 24 | 0.5 | BK/OG | 6619 | Middle Front Discriminating Sensor Low Reference | II | — |
| 25 - 36 | — | — | — | Not Occupied | — | — |
| 37 | 0.5 | RD | 3477 | Driver Seat Belt Retractor Pretensioner High Control | II | — |
| 38 | 0.5 | GY | 3478 | Driver Seat Belt Retractor Pretensioner Low Control | II | — |
| 39 | 0.5 | WH | 3476 | Passenger Seat Belt Retractor Pretensioner Low Control | II | — |
| 40 | 0.5 | L-GN | 3475 | Passenger Seat Belt Retractor Pretensioner High Control | II | — |
| 41 | 0.35 | OG/BN | 238 | Driver Seat Belt Switch Signal | I | — |
| 42 | — | — | — | Not Occupied | — | — |
| 43 | 0.35 | BK/OG | 1363 | Driver Seat Belt Switch Low Reference | I | — |
| 44 - 54 | — | — | — | Not Occupied | — | — |

# K38A Chassis Control Module - Auxiliary (JL1)



3240111

## Connector Part Information

Harness Type: Chassis
OEM Connector: 4086720C1
Service Connector: Service by Harness - See Part Catalog
Description: 38-Way F 1.5 CTS, 2.8 MCP, 4.8 MCP Series, Sealed (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Available | Not Available | Not Available | Not Available |

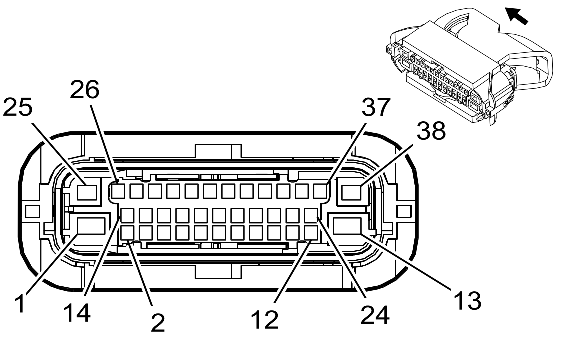
## K38A Chassis Control Module - Auxiliary (JL1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1 | RD | 2040 | Battery Positive Voltage | I | — |
| 2 - 12 | — | — | — | Not Occupied | — | — |
| 13 | 1 | BK | 1750 | Ground | I | — |
| 14 | 0.5 | VT/YE | 5985 | Accessory Wakeup Serial Data | I | — |
| 15 | — | — | — | Not Occupied | — | — |
| 16 | 0.5 | BU/RD | 7632 | Integrated Trailer Brake Controller Switch 5V Reference | I | — |
| 17 | — | — | — | Not Occupied | — | — |
| 18 | 0.5 | BN | 7634 | Integrated Trailer Brake Controller Redundant Manual Apply Signal | I | — |
| 19 | 0.5 | BK/BN | 7631 | Integrated Trailer Brake Controller Switch Low Reference | I | — |
| 20 | 0.5 | YE | 7635 | Integrated Trailer Brake Controller Manual Apply Signal | I | — |
| 21 | 0.5 | GN/BK | 7633 | Integrated Trailer Brake Controller User Gain Signal | I | — |
| 22 | 0.5 | YE/BK | 2224 | Trailer Brake Enable Signal | I | — |
| 23 | 0.5 | WH/BK | 2223 | Trailer Brake Control Signal | I | — |
| 24 | — | — | — | Not Occupied | — | — |
| 25 | 1.5 | VT/GN | 439 | Run/Crank Ignition 1 Voltage | I | — |
| 26 | 0.5 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | — |
| 27 | 0.5 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | — |

## K38A Chassis Control Module - Auxiliary (JL1) (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 28 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | — |
| 29 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | — |
| 30 | 0.5 | GN/VT | 4114 | Local Interconnect Network Serial Data Bus 14 | I | — |
| 31 - 38 | — | — | — | Not Occupied | — | — |

# K44 Power Take-Off Control Module X1 (PTO)



3240111

## Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 13924619
Service Connector: 19119894
Description: 38-Way F 1.5 CTS, 2.8 MCP, 4.8 MCP Series, Sealed (BK)

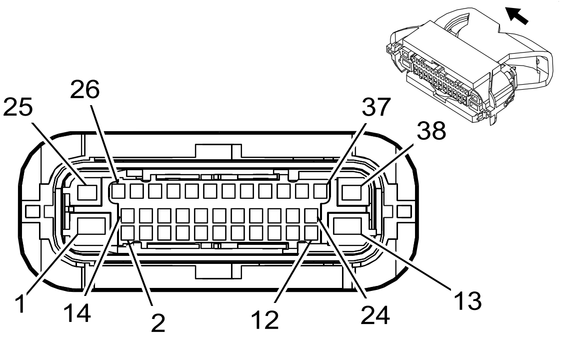
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19119772 | J-35616-35 (VT) | J-38125-557 | 1241388-1 | Lear 17 | E | C |
| II | 19301757 | J-35616-40 (BU) | J-38125-556 | 1241408-1 | Lear 28 | C | A |
| III | 19301775 | J-35616-40 (BU) | J-38125-556 | Not Available | Not Available | Not Available | Not Available |
| IV | 19301776 | J-35616-14 (GN) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

## K44 Power Take-Off Control Module X1 (PTO)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | RD/D-BU | 4540 | Battery Positive Voltage | III | — |
| 2 - 12 | — | — | — | Not Occupied | — | — |
| 13 | 1.5 | BK/WH | 451 | Signal Ground | II | — |
| 14 | 0.5 | WH/D-BU | 5986 | Serial Data Communication Enable | IV | — |
| 15 | 0.5 | L-GN/WH | 488 | Power Take Off Control Switch | IV | — |
| 16 - 17 | — | — | — | Not Occupied | — | — |
| 18 | 0.5 | BN/L-GN | 4311 | Power Take Off Enable In Cab Switch Normally Closed Signal | IV | — |
| 19 - 24 | — | — | — | Not Occupied | — | — |
| 25 | 0.75 | BN/WH | 6085 | Power Take Off Remote Engine Start Switch Signal | I | — |
| 26 | 0.5 | D-BU | 2500 | High Speed GMLAN Serial Data (+) 1 | IV | — |
| 27 | 0.5 | D-BU | 2500 | High Speed GMLAN Serial Data (+) 1 | IV | — |
| 28 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | IV | — |
| 29 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | IV | — |
| 30 - 38 | — | — | — | Not Occupied | — | — |

## K44 Power Take-Off Control Module X2 (PTO)



3638282

### Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 13655518
Service Connector: 19303771
Description: 38-Way F 1.5 CTS, 2.8 MCP, 4.8 MCP Series, Sealed (BK with BN Inner Connector)

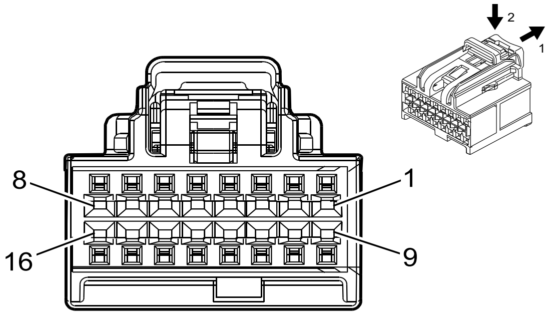
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19301776 | J-35616-14 (GN) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

### K44 Power Take-Off Control Module X2 (PTO)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 7 | — | — | — | Not Occupied | — | — |
| 8 | 0.75 | YE | 2522 | Power Take Off Status Signal | I | — |
| 9 - 10 | — | — | — | Not Occupied | — | — |
| 11 | 0.5 | VT/D-BU | 2562 | Power Take Off Relay Coil Control | I | — |
| 12 - 27 | — | — | — | Not Occupied | — | — |
| 28 | 0.5 | WH/L-GN | 6142 | Power Take Off Engine Shutdown Signal | I | — |
| 29 - 34 | — | — | — | Not Occupied | — | — |
| 35 | 0.5 | D-BU/GY | 6089 | Power Take Off Remote Switch Set Signal 1 | I | — |
| 36 | 0.75 | D-BU/BN | 4408 | Power Take Off Enable Signal | I | — |
| 37 | 0.75 | BN | 6381 | Power Take Off Relay Engage Signal | I | — |
| 38 | — | — | — | Not Occupied | — | — |

# K56 Serial Data Gateway Module X1



4873243

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35016343
Service Connector: 13519738
Description: 16-Way F 0.64 OCS Series (BK)

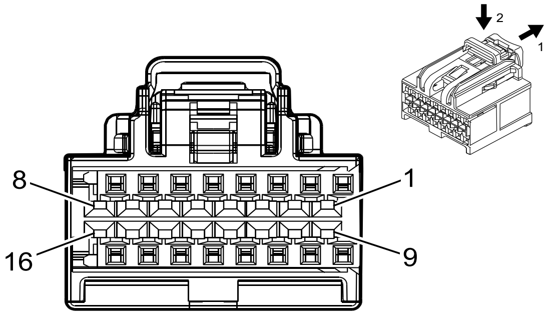
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300660 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

## K56 Serial Data Gateway Module X1

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | RD/VT | 3340 | Battery Positive Voltage | I | — |
| 2 | — | — | — | Not Occupied | — | — |
| 3 | 0.35 | D-BU/L-GN | 1304 | High Speed GMLAN Serial Data (+)9 | I | — |
| 4 | 0.35 | WH/L-GN | 1305 | High Speed GMLAN Serial Data (-)9 | I | — |
| 5 | — | — | — | Not Occupied | — | — |
| 6 | 0.35 | BK/WH | 1851 | Signal Ground | I | — |
| 7 | 0.5 | D-BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | — |
| 8 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | — |
| 9 | — | — | — | Not Occupied | — | — |
| 10 | 0.35 | WH/D-BU | 5986 | Serial Data Communication Enable | I | — |
| 11 | 0.35 | D-BU/L-GN | 1304 | High Speed GMLAN Serial Data (+)9 | I | — |
| 12 | 0.35 | WH/L-GN | 1305 | High Speed GMLAN Serial Data (-)9 | I | — |
| 13 | 0.35 | D-BU/L-GN | 1304 | High Speed GMLAN Serial Data (+)9 | I | — |
| 14 | 0.35 | WH/L-GN | 1305 | High Speed GMLAN Serial Data (-)9 | I | — |
| 15 | 0.5 | L-GN | 5060 | Low Speed GMLAN Serial Data | I | — |
| 16 | — | — | — | Not Occupied | — | — |

# K56 Serial Data Gateway Module X2



4873254

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35016344
Service Connector: 13519739
Description: 16-Way F 0.64 OCS Series (GY)

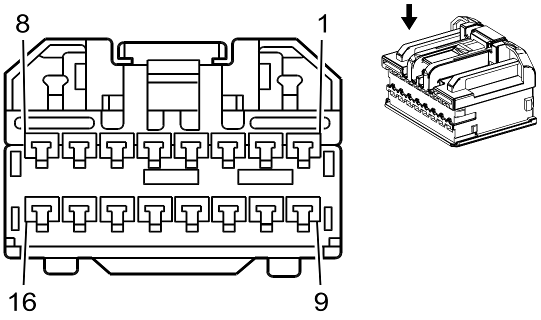
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300660 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

## K56 Serial Data Gateway Module X2

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | D-BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | — |
| 2 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | — |
| 3 - 6 | — | — | — | Not Occupied | — | — |
| 7 | 0.5 | D-BU/YE | 6105 | High Speed GMLAN Serial Data (+) 2 | I | — |
| 8 | 0.5 | WH | 6106 | High Speed GMLAN Serial Data (-) 2 | I | — |
| 9 | — | — | — | Not Occupied | — | — |
| 10 | 0.5 | GY/L-GN | 1102 | Low Speed GMLAN Serial Data #2 | I | — |
| 11 - 16 | — | — | — | Not Occupied | — | — |

# K69 Transfer Case Control Module X1 (NQF)



1866235

## Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 13547237
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.5 Series (GY)

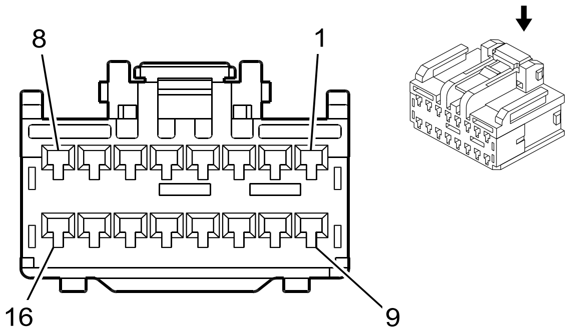
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## K69 Transfer Case Control Module X1 (NQF)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | YE/BK | 7478 | Rotary Position Sensor Low Reference | II | — |
| 2 | 0.5 | WH/L-GN | 7479 | Rotary Position Sensor Signal | II | — |
| 3 | 0.35 | YE | 7474 | Incremental Encoder Direction Signal | II | — |
| 4 | 0.5 | GY/BK | 1570 | Front Axle Actuator Control | II | — |
| 5 | 0.35 | D-BU/GY | 7473 | Incremental Encoder Impulse Signal | II | — |
| 6 | 0.35 | GY/RD | 6029 | Four Wheel Drive Mode Switch 5V Reference | II | — |
| 7 | 0.35 | D-BU/YE | 1693 | Four Wheel Drive Switch Signal | II | — |
| 8 | — | — | — | Not Occupied | — | — |
| 9 | 0.5 | WH/RD | 7477 | Rotary Position Sensor 5V Reference | II | — |
| 10 | 0.35 | WH/L-GN | 7475 | Incremental Encoder Sensor 8V Reference | II | — |
| 11 | 0.35 | VT | 7476 | Incremental Encoder Sensor Low Reference | II | — |
| 12 | 0.5 | YE/WH | 1695 | Four Wheel Drive Wheel Lock Indicator Control | II | — |
| 13 | 1 | YE/BN | 1569 | Transfer Case Lock Solenoid Control | I | — |
| 14 - 16 | — | — | — | Not Occupied | — | — |

# K69 Transfer Case Control Module X2 (NQF)



1653404

## Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 15489823
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.5 Series (BK)

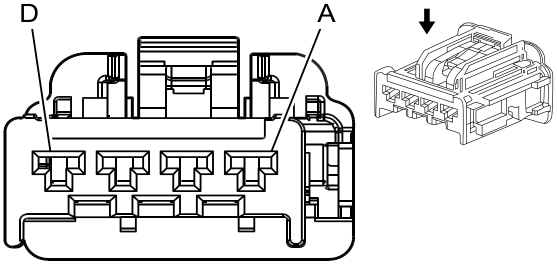
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## K69 Transfer Case Control Module X2 (NQF)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 2 | — | — | — | Not Occupied | — | — |
| 3 | 0.35 | VT/WH | 1565 | 4 LO Indicator Control | I | — |
| 4 | 0.35 | VT/L-GN | 1739 | Run/Crank Ignition 1 Voltage | I | — |
| 5 | — | — | — | Not Occupied | — | — |
| 6 | 0.35 | VT/YE | 5985 | Accessory Wakeup Serial Data | I | — |
| 7 | 0.5 | D-BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | — |
| 8 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | — |
| 9 - 10 | — | — | — | Not Occupied | — | — |
| 11 | 0.35 | GY/L-GN | 1561 | AWD Indicator Control | I | — |
| 12 | 0.35 | BN | 1560 | Neutral Indicator Control | I | — |
| 13 | 0.35 | L-GN/BK | 1563 | 2 HI Indicator Control | I | — |
| 14 | 0.35 | BN/BK | 1566 | 4 HI Indicator Control | I | — |
| 15 | 0.5 | D-BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | — |
| 16 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | — |

# K69 Transfer Case Control Module X3 (NQF)



1866237

## Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 15466671
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 280 GT Series (L-GY)

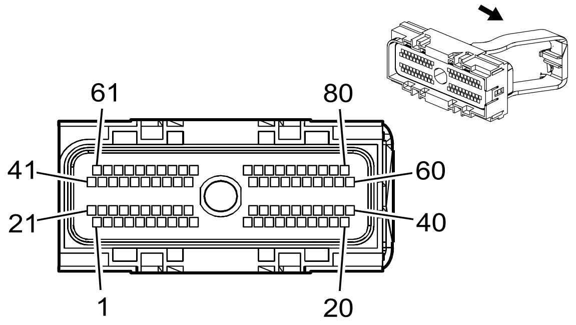
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## K69 Transfer Case Control Module X3 (NQF)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 4 | YE/VT | 1553 | Transfer Case Motor Counter Clockwise Control | I | — |
| B | 4 | YE/GY | 1552 | Transfer Case Motor Clockwise Control | I | — |
| C | 3 | RD/GY | 1342 | Battery Positive Voltage | I | — |
| D | 3 | BK | 550 | Ground | I | — |

# K71 Transmission Control Module



1864287

## Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 15499493
Service Connector: 88988938
Description: 80-Way F 1.5 Series, Sealed (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13578813 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| II | 19300432 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| III | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |

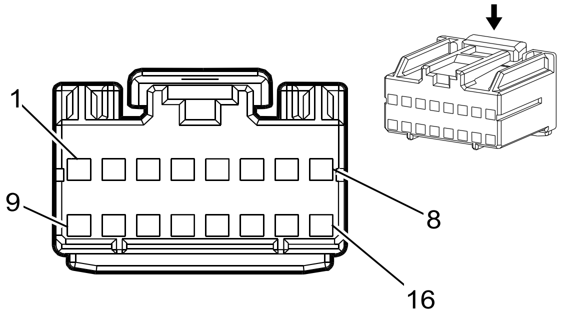
## K71 Transmission Control Module

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 5 | — | — | — | Not Occupied | — | — |
| 6 | 0.75 | YE | 2500 | High Speed GMLAN Serial Data (+) 1 | III | — |
| 7 - 8 | — | — | — | Not Occupied | — | — |
| 9 | 1.5 | BK | 109 | Hood Ajar Switch Signal | II | — |
| 10 | 0.75 | RD | 110 | Sunroof Switch Close Signal | III | — |
| 11 | 0.75 | OG | 111 | Hazard Switch Signal | I | — |
| 12 - 13 | — | — | — | Not Occupied | — | — |
| 14 | 0.75 | GY | 114 | Low Oil Pressure Switch Signal | I | — |
| 15 - 16 | — | — | — | Not Occupied | — | — |
| 17 | 0.75 | D-BU | 117 | Right Front Speaker Signal (-) 1 | I | — |
| 18 - 19 | — | — | — | Not Occupied | — | — |
| 20 | 0.75 | D-BU | 120 | Fuel Pump Control | I | — |
| 21 - 22 | — | — | — | Not Occupied | — | — |
| 23 | 0.75 | L-GN | 123 | Folding Top Relay Up Control | I | — |
| 24 - 26 | — | — | — | Not Occupied | — | — |
| 27 | 0.75 | L-GN | 2501 | High Speed GMLAN Serial Data (-) 1 | III | — |
| 28 - 30 | — | — | — | Not Occupied | — | — |

## K71 Transmission Control Module (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 31 | 0.75 | YE | 131 | Sunroof Limit Switch Range Signal | I | — |
| 32 | — | — | — | Not Occupied | — | — |
| 33 | 0.75 | YE | 133 | Sunroof Limit Switch Low Reference | I | — |
| 34 | 0.75 | WH | 134 | Charge Port Valve Command Signal | I | — |
| 35 | — | — | — | Not Occupied | — | — |
| 36 | 0.75 | OG | 136 | Driver Information Center Fuel LED Control | I | — |
| 37 | 0.75 | WH | 137 | Driver Information Center Switch Economy LED Control | I | — |
| 38 | 0.75 | OG | 138 | Rear Compartment Lid Pull Down Motor Control | I | — |
| 39 | — | — | — | Not Occupied | — | — |
| 40 | 0.75 | L-GN | 140 | Battery Positive Voltage | I | — |
| 41 - 50 | — | — | — | Not Occupied | — | — |
| 51 | 0.75 | WH | 151 | Signal Ground | I | — |
| 52 | 0.75 | L-GN | 152 | Driver Information Center Gauge LED Control | I | — |
| 53 | 0.75 | YE | 153 | Driver Information Center Oil LED Control | I | — |
| 54 | 0.75 | TN | 154 | Driver Information Center Date LED Control | I | — |
| 55 | 0.75 | WH | 155 | Driver Seat Belt Retractor Solenoid Control | I | — |
| 56 | — | — | — | Not Occupied | — | — |
| 57 | 0.75 | WH | 157 | Interior Lamp Control | I | — |
| 58 | 0.75 | L-GN | 158 | Cargo Lamp Switch Signal | I | — |
| 59 | — | — | — | Not Occupied | — | — |
| 60 | 0.75 | YE | 160 | Antenna Motor Down Control | I | — |
| 61 - 62 | — | — | — | Not Occupied | — | — |
| 63 | 0.75 | YE | 163 | Folding Top Motor Down Control | I | — |
| 64 - 70 | — | — | — | Not Occupied | — | — |
| 71 | 0.75 | YE | 171 | Power Window Master Switch Right Rear Down Signal | I | — |
| 72 | — | — | — | Not Occupied | — | — |
| 73 | 0.75 | D-BU | 173 | ABS Pump Motor Control | I | — |
| 74 | 0.75 | D-BU | 174 | Low Washer Fluid Indicator Control | I | — |
| 75 - 76 | — | — | — | Not Occupied | — | — |
| 77 | 0.75 | L-GN | 177 | Left Folding Top Motor Down Control | I | — |
| 78 | 0.75 | WH | 178 | Right Folding Top Motor Down Control | I | — |
| 79 | 0.75 | RD | 179 | Oil Pump Command Signal | I | — |
| 80 | 0.75 | OG | 180 | Remote Compact Disc/Cassette Player Control | I | — |

# K73 Telematics Communication Interface Control Module X1 (UE1)



1471689

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15431362
Service Connector: 15306351
Description: 16-Way F 100A Micro-Pack Series (NA)

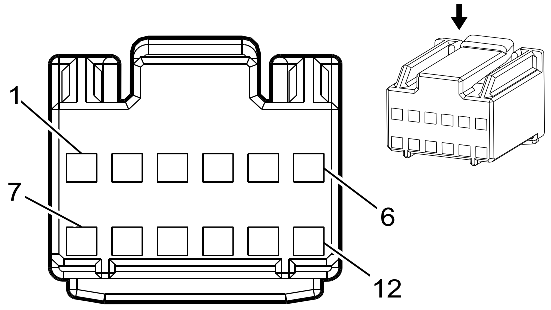
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575546 | J-35616-16 (LT GN) | J-38125-559 | 15445905 | Delphi 23 | J | J |
| II | 13575548 | J-35616-16 (LT GN) | J-38125-559 | 15445905 | Delphi 23 | J | J |

## K73 Telematics Communication Interface Control Module X1 (UE1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/L-GN | 1102 | Low Speed GMLAN Serial Data #2 | II | — |
| 2 | 0.35 | BN/WH | 2517 | Keypad Red LED Control | I | — |
| 3 | 0.35 | YE/VT | 2516 | Keypad Green LED Control | I | — |
| 4 - 5 | — | — | — | Not Occupied | — | — |
| 6 | 0.35 | L-GN/BK | 2515 | Keypad Control | I | — |
| 7 | 0.35 | BK | 2550 | Ground | I | — |
| 8 - 9 | — | — | — | Not Occupied | — | — |
| 10 | 0.35 | D-BU/L-GN | 1304 | High Speed GMLAN Serial Data (+)9 | I | — |
| 11 | 0.35 | L-GN/WH | 2514 | Keypad Signal | I | — |
| 12 | 0.35 | WH/L-GN | 1305 | High Speed GMLAN Serial Data (-)9 | I | — |
| 13 - 14 | — | — | — | Not Occupied | — | — |
| 15 | 0.35 | RD/D-BU | 3240 | Battery Positive Voltage | I | — |
| 16 | — | — | — | Not Occupied | — | — |

# K73 Telematics Communication Interface Control Module X2 (UE1)



1471691

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15431365
Service Connector: 88952886
Description: 12-Way F 100A Micro-Pack Series (NA)

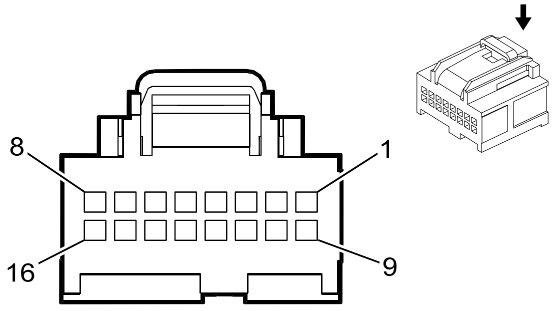
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575546 | J-35616-16 (LT GN) | J-38125-559 | 15445905 | Delphi 23 | J | J |
| II | 13575548 | J-35616-16 (LT GN) | J-38125-559 | 15445905 | Delphi 23 | J | J |

## K73 Telematics Communication Interface Control Module X2 (UE1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE | 658 | Cellular Telephone Voice Signal | I | — |
| 2 | 0.35 | BK/YE | 659 | Cellular Telephone Voice Low Reference | I | — |
| 3 | 0.5 | D-BU/L-GN | 1304 | High Speed GMLAN Serial Data (+)9 | II | — |
| 4 | 0.5 | WH/L-GN | 1305 | High Speed GMLAN Serial Data (-)9 | II | — |
| 5 | 0.5 | Bare | 1792 | Low Reference | II | — |
| 6 | 0.35 | GY/YE | 5149 | Voice Recognition Audio Signal | I | — |
| 7 | 0.35 | WH/D-BU | 5986 | Serial Data Communication Enable | I | — |
| 8 | 0.35 | Bare | 1782 | Low Reference | I | — |
| 9 | 0.35 | D-BU | 655 | Cellular Telephone Microphone Signal | I | — |
| 10 | 0.35 | BK/BN | 654 | Cellular Telephone Microphone Low Reference | I | — |
| 11 | — | — | — | Not Occupied | — | — |
| 12 | 0.35 | BK/GY | 5152 | Voice Recognition Audio Low Reference | I | — |

## K74 Human Machine Interface Control Module X1 (IO5/IO6)



3240102

### Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35013094
Service Connector: 13519737
Description: 16-Way F 0.64 OCS Series (BK)

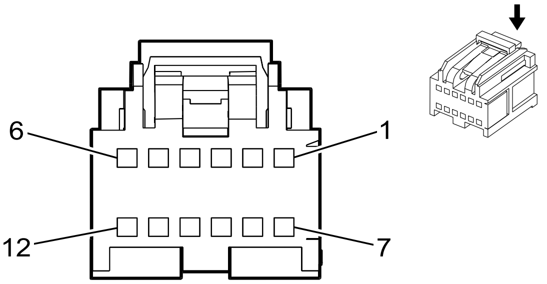
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300660 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

### K74 Human Machine Interface Control Module X1 (IO5/IO6)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35<br>0.35 | GY/YE<br>D-BU | 5149<br>655 | Voice Recognition Audio Signal<br>Cellular Telephone Microphone Signal | I<br>I | UE1<br>-UE1 |
| 2 | 0.35<br>0.35 | BK/GY<br>BK/BN | 5152<br>654 | Voice Recognition Audio Low Reference<br>Cellular Telephone Microphone Low Reference | I<br>I | UE1<br>-UE1 |
| 3 - 4 | — | — | — | Not Occupied | — | — |
| 5 | 0.35 | WH/D-BU | 5986 | Serial Data Communication Enable | I | — |
| 6 | — | — | — | Not Occupied | — | — |
| 7 | 0.75 | RD/VT | 340 | Battery Positive Voltage | I | — |
| 8 | 0.75 | BK | 2550 | Ground | I | — |
| 9 | 0.5 | L-GN/WH | 7527 | Local Interconnect Network Serial Data Bus 5 | I | — |
| 10 | — | — | — | Not Occupied | — | — |
| 11 | 0.5<br>0.35 | D-BU/L-GN<br>D-BU/L-GN | 1304<br>1304 | High Speed GMLAN Serial Data (+)9<br>High Speed GMLAN Serial Data (+)9 | I<br>I | UE1<br>-UE1 |
| 12 | 0.5<br>0.35 | WH/L-GN<br>WH/L-GN | 1305<br>1305 | High Speed GMLAN Serial Data (-)9<br>High Speed GMLAN Serial Data (-)9 | I<br>I | UE1<br>-UE1 |
| 13 | 0.5 | D-BU/L-GN | 1304 | High Speed GMLAN Serial Data (+)9 | I | — |
| 14 | 0.5 | WH/L-GN | 1305 | High Speed GMLAN Serial Data (-)9 | I | — |
| 15 - 16 | — | — | — | Not Occupied | — | — |

## K74 Human Machine Interface Control Module X2 (IO5/IO6)



3240099

### Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35013145
Service Connector: 19370823
Description: 12-Way F 0.64 OCS Series (GY)

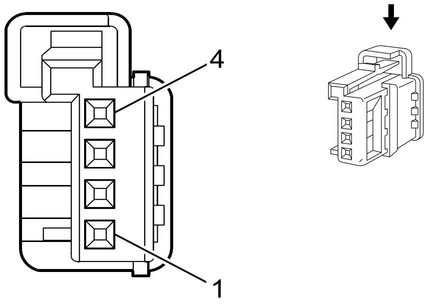
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300660 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

### K74 Human Machine Interface Control Module X2 (IO5/IO6)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/VT | 3999 | MOST Control | I | — |
| 2 | 0.5 | WH/L-GN | 3997 | MOST Serial Data (-) | I | — |
| 3 | 0.5 | GY/VT | 3998 | MOST Serial Data (+) | I | — |
| 4 | — | — | — | Not Occupied | — | — |
| 5 | 0.35 | GY/YE | 6972 | Camera Signal 2 + | I | — |
| 6 | 0.35 | WH/D-BU | 6973 | Camera Signal 2 | I | — |
| 7 | — | — | — | Not Occupied | — | — |
| 8 | 0.5 | GY/VT | 3998 | MOST Serial Data (+) | I | — |
| 9 | 0.5 | WH/L-GN | 3997 | MOST Serial Data (-) | I | — |
| 10 - 12 | — | — | — | Not Occupied | — | — |

# K77 Remote Control Door Lock Receiver



2179793

## Connector Part Information

Harness Type: Body
OEM Connector: 10768790
Service Connector: 13584096
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

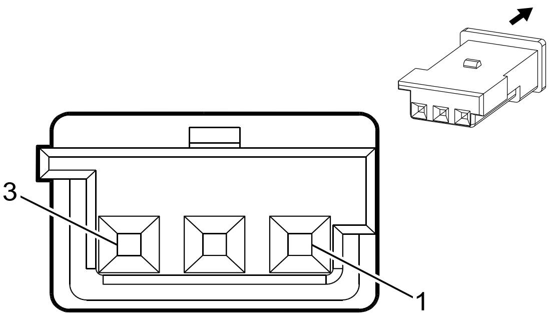
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## K77 Remote Control Door Lock Receiver

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY | 3273 | Remote Function Actuator Low Reference | I | — |
| 2 | 0.35 | YE/L-GN | 3274 | Remote Function Actuator Transmit Signal | I | — |
| 3 | 0.35 | D-BU/WH | 3275 | Remote Function Actuator Receive Signal | I | — |
| 4 | 0.35 | GY/WH | 3272 | Remote Function Actuator Control | I | — |

## K89 Immobilizer Control Module



2179789

### Connector Part Information

Harness Type: Steering Column
OEM Connector: 19153569
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F Micro-Quadlock Series (PU)

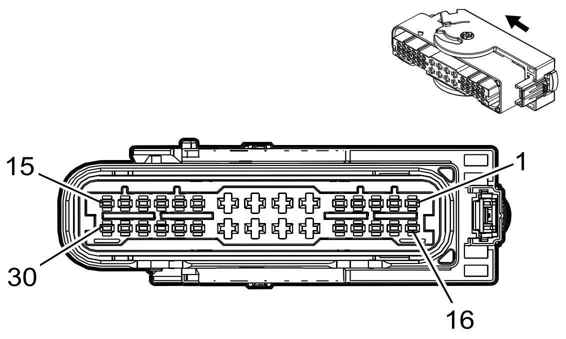
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### K89 Immobilizer Control Module

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN/GY | 3277 | Vehicle Anti-Theft System Immobilizer Low Reference | I | — |
| 2 | 0.5 | GN/VT | 7533 | Local Interconnect Network Serial Data Bus 11 | I | — |
| 3 | 0.35 | GY/BK | 3276 | Vehicle Anti-Theft System Immobilizer Control | I | — |

## K111 Fuel Pump Driver Control Module



3240109

### Connector Part Information

Harness Type: Chassis
OEM Connector: 4086737C1
Service Connector: Service by Harness - See Part Catalog
Description: 30-Way F 1.5, 2.8 Series, Sealed (BK)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Available | Not Available | Not Available | Not Available |

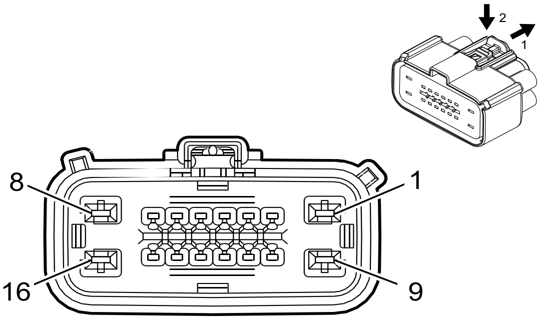
### K111 Fuel Pump Driver Control Module

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 3 | — | — | — | Not Occupied | — | — |
| 4 | 0.5 | BN/VT | 455 | Fuel Filter Temperature Signal | I | — |
| 5 | 0.5 | BK/BU | 6861 | Water In Fuel Sensor Signal | I | — |
| 6 | — | — | — | Not Occupied | — | — |
| 7 | 1.5 | RD/VT | 1242 | Battery Positive Voltage | I | — |
| 8 | 1.5 | GY | 120 | Fuel Pump Control | I | — |
| 9 | 1.5 | YE/GY | 4137 | Fuel Pump Supply Voltage Phase 2 | I | — |
| 10 - 12 | — | — | — | Not Occupied | — | — |
| 13 | 0.5<br>0.5 | BU/VT<br>VT | 1589<br>1589 | Primary Fuel Level Sensor Signal<br>Primary Fuel Level Sensor Signal | I<br>I | —<br>— |
| 14 | 0.5 | BU | 1937 | Secondary Fuel Level Sensor Signal | I | — |
| 15 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | I | — |
| 16 | 1 | VT/BU | 3674 | NOx Sensor 1 Control | I | — |
| 17 | 1 | VT/GN | 439 | Run/Crank Ignition 1 Voltage | I | — |
| 18 | 0.5 | GN/GY | 465 | Fuel Pump Primary Relay Control | I | — |
| 19 | 0.5 | BK/VT | 412 | Fuel Filter Temperature Sensor Low Reference | I | — |
| 20 - 21 | — | — | — | Not Occupied | — | — |
| 22 | 1.5 | BK | 2150 | Ground | I | — |
| 23 | 0.5 | BK | 7444 | Fuel System Control Module Shield Ground | I | — |
| 24 | 1.5 | WH/BN | 4138 | Fuel Pump Supply Voltage Phase 3 | I | — |
| 25 | 0.5 | BK/BU | 6863 | Water In Fuel Sensor Low Reference | I | — |

## K111 Fuel Pump Driver Control Module (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 26 - 27 | — | — | — | Not Occupied | — | — |
| 28 | 0.5 | BK/GN | 6281 | Fuel Level Sensor Low Reference | I | — |
| 29 | 0.5 | BN/WH | 6281 | Fuel Level Sensor Low Reference | I | — |
| 30 | 0.5 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | I | — |

# K133 Trailer Brake Power Control Module (JL1)



4624589

## Connector Part Information

Harness Type: Chassis
OEM Connector: 4086719C1
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.5, 2.8 Series, Sealed (GY)

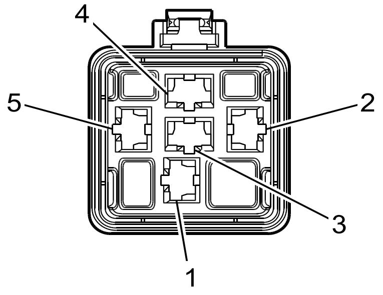
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Available | Not Available | Not Available | Not Available |

### K133 Trailer Brake Power Control Module (JL1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2<br>3 | RD/GN<br>RD/GN | 1142<br>1142 | Battery Positive Voltage<br>Battery Positive Voltage | I<br>I | —<br>— |
| 2 | 0.5 | WH/BK | 2223 | Trailer Brake Control Signal | I | — |
| 3 - 4 | — | — | — | Not Occupied | — | — |
| 5 | 0.5 | YE/BK | 2224 | Trailer Brake Enable Signal | I | — |
| 6 - 7 | — | — | — | Not Occupied | — | — |
| 8 | 3 | BU | 47 | Trailer Auxiliary Control | I | — |
| 9 | 3 | BK | 1750 | Ground | I | — |
| 10 - 11 | — | — | — | Not Occupied | — | — |
| 12 | 0.5 | GN/VT | 4114 | Local Interconnect Network Serial Data Bus 14 | I | — |
| 13 - 16 | — | — | — | Not Occupied | — | — |

# KR14 Brake Booster Pump Motor Relay



5168820

## Connector Part Information

Harness Type: Brake Booster
OEM Connector: 1661747C91
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way F 630 Metri-Pack Series, Sealed (BK)

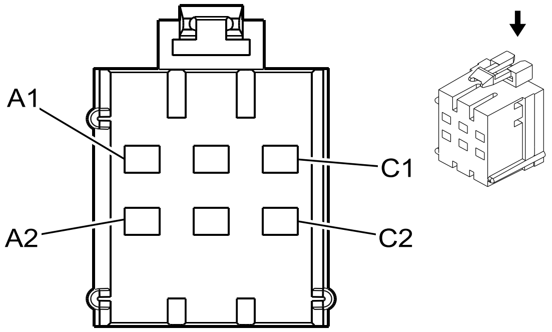
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## KR14 Brake Booster Pump Motor Relay

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 5 | RD | 90 | Right Mirror Motor Left Control | I | — |
| 2 | 1 | GY | 90 | Right Mirror Motor Left Control | I | — |
| 3 | — | — | — | Not Occupied | — | — |
| 4 | 5 | GY | 90 | Right Mirror Motor Left Control | I | — |
| 5 | 1 | GY | 90 | Right Mirror Motor Left Control | I | — |

# KR58 Roof Beacon Relay (TRW)



281201

## Connector Part Information

Harness Type: Overhead Console
OEM Connector: 12110541
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Flexlock Series (BK)

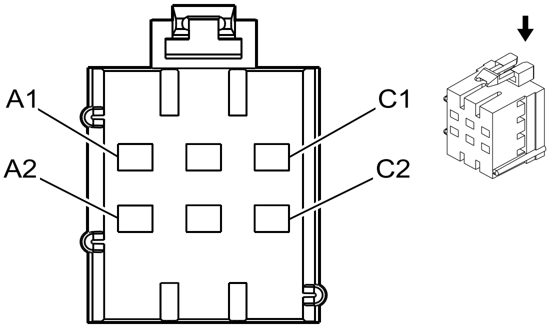
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## KR58 Roof Beacon Relay (TRW)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A1 | 0.35 | BK | 1050 | Ground | I | — |
| A2 | 2.5 | L-GN/D-BU | 5989 | Emergency Lamp Relay Contact Control | I | — |
| B1 - B2 | — | — | — | Not Occupied | — | — |
| C1 | 2.5 | RD/L-GN | 3140 | Battery Positive Voltage | I | — |
| C2 | 0.5 | WH/BK | 5990 | Emergency Lamp Switch Signal | I | — |

# KR193 Rear Air Suspension Control Valve Relay (JPZ)



309518

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12129715
Service Connector: Pending
Description: 6-Way F 280 Metri-Pack Flexlock Series (GY)

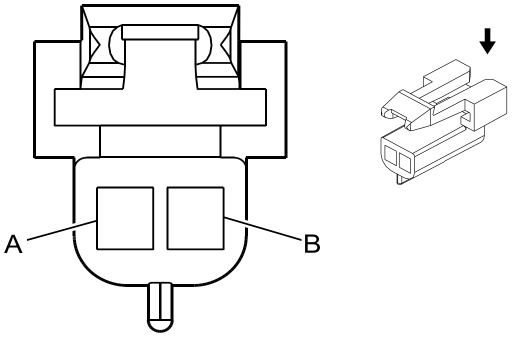
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## KR193 Rear Air Suspension Control Valve Relay (JPZ)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A1 | 0.35 | BK/GY | 5958 | Leveling Suspension Relay Coil Low Reference | I | — |
| A2 | 0.35<br>0.5 | GN/GY<br>GN/GY | 6095<br>6095 | Right Rear Air Spring Solenoid Control<br>Right Rear Air Spring Solenoid Control | I<br>I | —<br>— |
| B1 | — | — | — | Not Occupied | — | — |
| B2 | 0.5 | GN | 6094 | Left/Rear Air Spring Solenoid Control | I | — |
| C1 | 0.5 | VT/WH | 1139 | Run/Crank Ignition 1 Voltage | I | — |
| C2 | 0.35 | YE/GN | 5957 | Leveling Suspension Relay Coil Control | I | — |

# M7 Transmission Shift Lock Control Solenoid Actuator



280768

## Connector Part Information

Harness Type: Steering Column
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

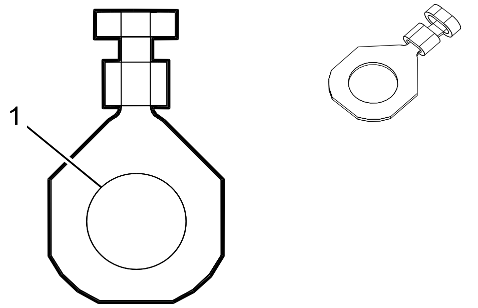
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## M7 Transmission Shift Lock Control Solenoid Actuator

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.5 | YE/WH | 816 | Brake Transmission Shift Interlock Solenoid Control | I | — |
| B | 0.5 | BK/WH | 1851 | Signal Ground | I | — |

## M9 Brake Booster Pump Motor



5168828

### Connector Part Information

Harness Type: Brake Booster
OEM Connector: 365682C2
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way Ring Terminal

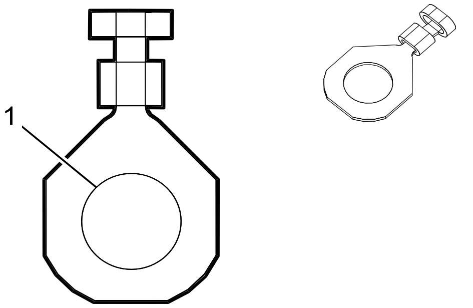
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### M9 Brake Booster Pump Motor

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 5 | GY | 90 | Right Mirror Motor Left Control | I | — |

## M9 Brake Booster Pump Motor X2



5168828

### Connector Part Information

Harness Type: Brake Booster
OEM Connector: 3867524C1
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way Ring Terminal

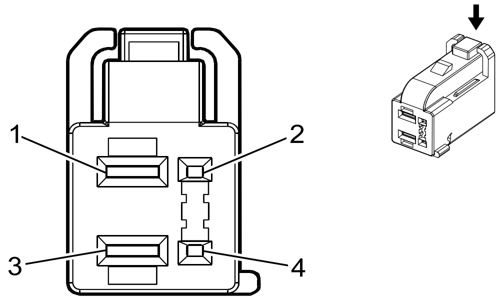
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### M9 Brake Booster Pump Motor X2

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 3 | WH | 90 | Right Mirror Motor Left Control | I | — |

# M50D Seat Front Vertical Motor - Driver (A95/AG1)



3683652

## Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 3-023-66-52
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BN)

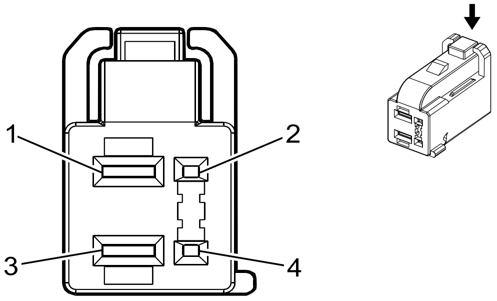
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## M50D Seat Front Vertical Motor - Driver (A95/AG1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | L-GN/BN | 286 | Driver Power Seat Front Vertical Motor Up Control | I | — |
| 2 | 0.35 | WH/RD | 3298 | Memory Sensor High Reference 2 | II | — |
| 3 | 1.5 | L-BU/VT | 287 | Driver Power Seat Front Vertical Motor Down Control | I | — |
| 4 | 0.5 | BN/WH | 557 | Memory Seat Front Vertical Motor Position Sensor Signal | II | — |

# M51D Seat Horizontal Motor - Driver (A95/AG1)



3683652

## Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 3-023-66-52
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BN)

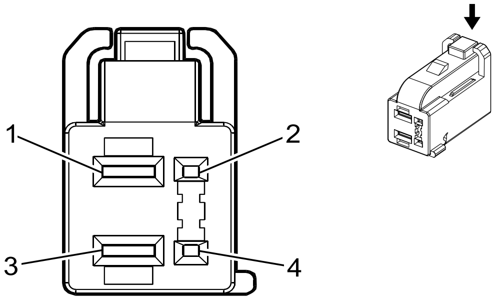
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## M51D Seat Horizontal Motor - Driver (A95/AG1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | YE/L-BU | 285 | Driver Power Seat Horizontal Motor Forward Control | I | — |
| 2 | 0.35 | WH/RD | 3298 | Memory Sensor High Reference 2 | II | — |
| 3 | 1.5 | GY/L-GN | 284 | Driver Power Seat Horizontal Motor Rearward Control | I | — |
| 4 | 0.5 | L-GN | 569 | Memory Seat Horizontal Motor Position Sensor Signal | II | — |

# M51P Seat Horizontal Motor - Passenger (A95)



3683652

## Connector Part Information

Harness Type: Passenger Seat Cushion
OEM Connector: 3-023-66-52
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BN)

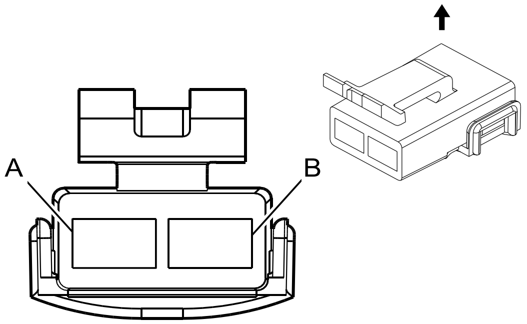
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## M51P Seat Horizontal Motor - Passenger (A95)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | YE/L-BU | 290 | Passenger Power Seat Horizontal Motor Rearward Control | I | — |
| 2 | — | — | — | Not Occupied | — | — |
| 3 | 1.5 | YE/WH | 296 | Passenger Power Seat Horizontal Motor Forward Control | I | — |
| 4 | — | — | — | Not Occupied | — | — |

# M52D Seat Lumbar Support Horizontal Motor - Driver (A95/AG1)



130707

## Connector Part Information

Harness Type: Driver Seat Back
OEM Connector: 12020556
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 480 Metri-Pack Series (BK)

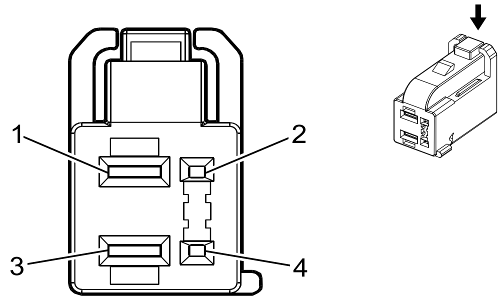
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-40 (BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## M52D Seat Lumbar Support Horizontal Motor - Driver (A95/AG1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 1.5 | L-BU | 611 | Driver Power Seat Lumbar Motor Forward Control | I | — |
| B | 1.5 | VT | 610 | Driver Power Seat Lumbar Motor Rearward Control | I | — |

# M55D Seat Rear Vertical Motor - Driver (A95/AG1)



3683652

## Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 3-023-66-52
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BN)

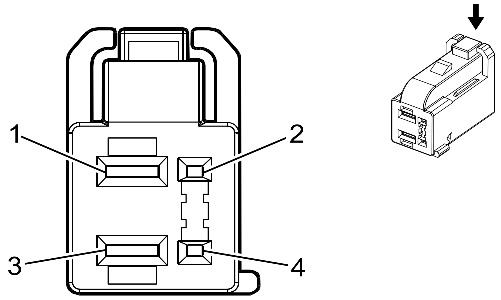
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## M55D Seat Rear Vertical Motor - Driver (A95/AG1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | GY/L-BU | 283 | Driver Power Seat Rear Vertical Motor Down Control | I | — |
| 2 | 0.35 | WH/RD | 3298 | Memory Sensor High Reference 2 | II | — |
| 3 | 1.5 | YE | 282 | Driver Power Seat Rear Vertical Motor Up Control | I | — |
| 4 | 0.5 | YE/L-BU | 568 | Memory Seat Rear Vertical Motor Position Sensor Signal | II | — |

# M56D Seat Recline Motor - Driver ((A95/AG1)+KA1)



3683652

## Connector Part Information

Harness Type: Driver Seat Back
OEM Connector: 3-023-66-52
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BN)

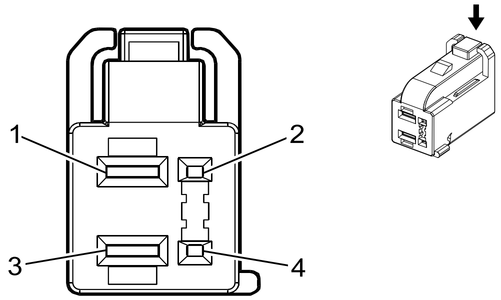
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## M56D Seat Recline Motor - Driver ((A95/AG1)+KA1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | L-GN/YE | 276 | Driver Power Seat Recline Motor Forward Control | I | — |
| 2 | 0.35 | WH/RD | 3298 | Memory Sensor High Reference 2 | II | — |
| 3 | 1.5 | L-BU/YE | 277 | Driver Power Seat Recline Motor Rearward Control | I | — |
| 4 | 0.35 | WH/BK | 570 | Driver Memory Seat Recline Motor Position Sensor Signal | II | — |

# M56D Seat Recline Motor - Driver ((A95/AG1)-KA1)



3683652

## Connector Part Information

Harness Type: Driver Seat Back
OEM Connector: 13597381
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BN)

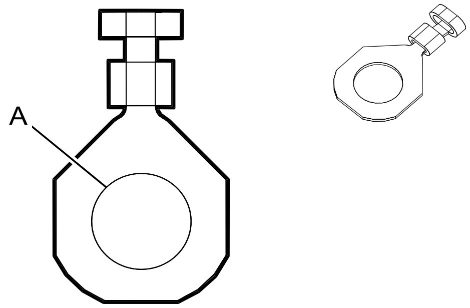
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## M56D Seat Recline Motor - Driver ((A95/AG1)-KA1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | L-GN/YE | 276 | Driver Power Seat Recline Motor Forward Control | I | — |
| 2 | 0.35 | WH/RD | 3298 | Memory Sensor High Reference 2 | II | — |
| 3 | 1.5 | L-BU/YE | 277 | Driver Power Seat Recline Motor Rearward Control | I | — |
| 4 | 0.35 | WH/BK | 570 | Driver Memory Seat Recline Motor Position Sensor Signal | II | — |

# M64 Starter Motor X1



3240148

## Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 12103519
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

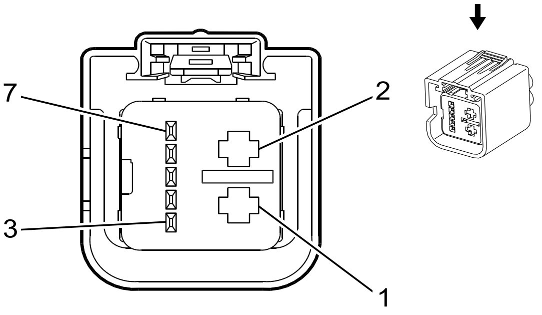
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## M64 Starter Motor X1

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 3 | YE/VT | 6 | Starter Solenoid Crank Ignition Voltage | I | — |

# M74D Window Motor - Driver (A31)



2282932

## Connector Part Information

Harness Type: Driver Door
OEM Connector: 15504732
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 0.64, 2.8 Kaizen Timer Series, Sealed (BK)

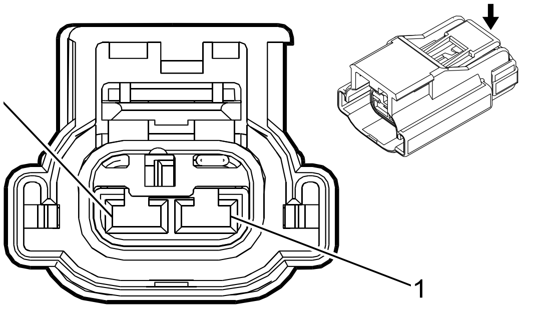
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## M74D Window Motor - Driver (A31)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | BK | 1150 | Ground | I | — |
| 2 | 2.5 | RD/D-BU | 1842 | Battery Positive Voltage | I | — |
| 3 | 0.35 | L-GN/WH | 1300 | Power Window Master Switch Left Front Up Signal | II | — |
| 4 | 0.5 | L-GN/YE | 6134 | Local Interconnect Network Serial Data Bus 3 | II | — |
| 5 | 0.35 | L-GN/VT | 7628 | Power Window Motor Left Front Express Control | II | — |
| 6 | 0.35 | GY | 745 | Left Front Door Ajar Switch Signal | II | — |
| 7 | 0.35 | GY | 1136 | Power Window Master Switch Left Front Down Signal | II | — |

# M74LR Window Motor - Left Rear (Crew Cab)



3372003

## Connector Part Information

Harness Type: Left Rear Door
OEM Connector: 13896059
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed (BK)

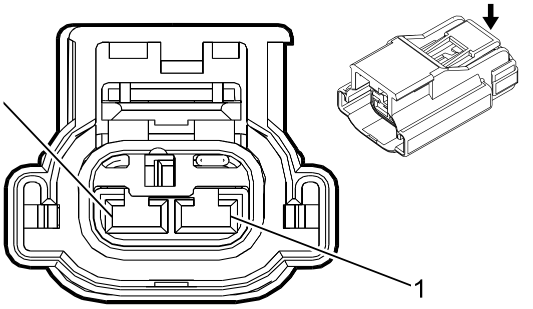
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## M74LR Window Motor - Left Rear (Crew Cab)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | D-BU/VT | 668 | Power Window Motor Left Rear Up Control | I | — |
| 2 | 2.5 | YE/D-BU | 669 | Power Window Motor Left Rear Down Control | I | — |

# M74P Window Motor - Passenger



3372003

## Connector Part Information

Harness Type: Passenger Door
OEM Connector: 13896059
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed (BK)

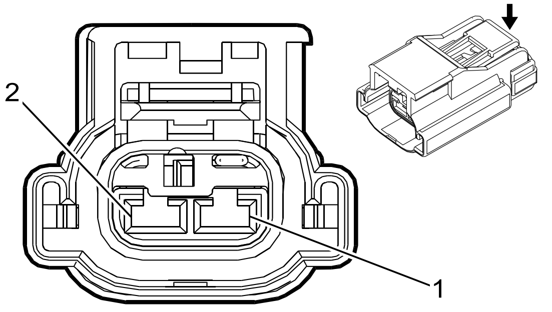
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## M74P Window Motor - Passenger

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | YE/D-BU | 3388 | Power Window Motor Passenger Down Control | I | — |
| 2 | 2.5 | L-GN/GY | 3387 | Power Window Motor Passenger Up Control | I | — |

# M74RR Window Motor - Right Rear (Crew Cab)



3372003

## Connector Part Information

Harness Type: Right Rear Door
OEM Connector: 13896059
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed (BK)

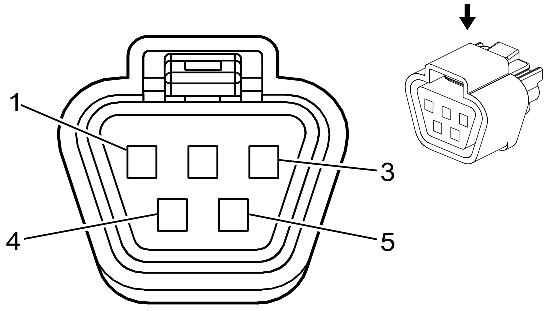
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## M74RR Window Motor - Right Rear (Crew Cab)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | D-BU/GY | 670 | Power Window Motor Right Rear Up Control | I | — |
| 2 | 2.5 | L-GN/BK | 671 | Power Window Motor Right Rear Down Control | I | — |

# M75 Windshield Wiper Motor



1715213

## Connector Part Information

Harness Type: Body
OEM Connector: 15316488
Service Connector: 13587179
Description: 5-Way F 090 Series, Sealed (BK)

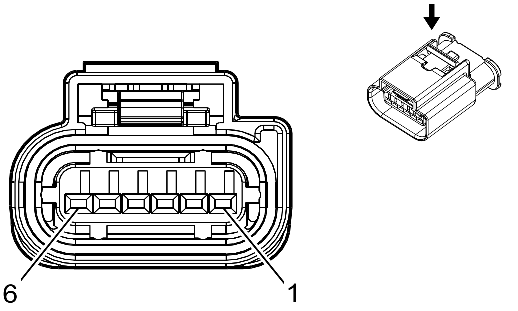
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-18 (BK) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## M75 Windshield Wiper Motor

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1 | YE/BN | 95 | Windshield Wiper Motor Low Speed Control | I | — |
| 2 | 0.5 | BK | 1850 | Ground | I | — |
| 3 | 0.5 | BN/L-GN | 196 | Windshield Wiper Motor Park Switch Signal | I | — |
| 4 | 1 | WH | 92 | Windshield Wiper Motor High Speed Control | I | — |
| 5 | 1 | BK | 550 | Ground | I | — |

# M103 Turbocharger Vane Position Actuator



3747579

## Connector Part Information

Harness Type: Engine
OEM Connector: 13507080
Service Connector: 19354437
Description: 6-Way F 1.2 MCON Series, Sealed (BK)

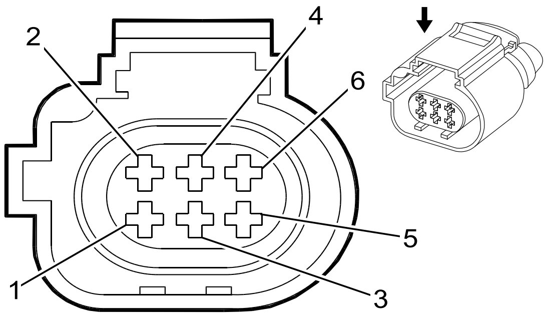
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## M103 Turbocharger Vane Position Actuator

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | I | — |
| 2 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | I | — |
| 3 | 0.5 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | I | — |
| 4 | 0.5 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | I | — |
| 5 | 0.5 | BK/WH | 251 | Signal Ground | I | — |
| 6 | 0.5 | VT/BU | 3674 | NOx Sensor 1 Control | I | — |

## M114 Exhaust Gas Recirculation Cooler Bypass Valve Actuator



2216905

### Connector Part Information

Harness Type: Engine
OEM Connector: 284716-5
Service Connector: 19354082
Description: 6-Way F 1.6 Micro-Timer Series, Sealed (GY)

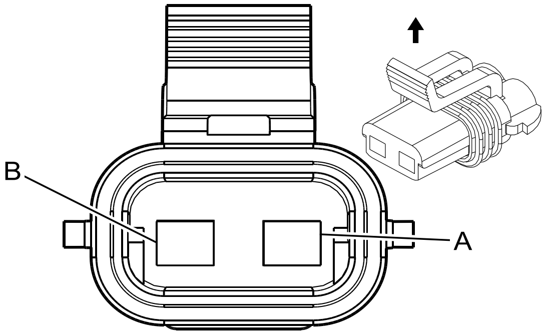
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### M114 Exhaust Gas Recirculation Cooler Bypass Valve Actuator

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BN/VT | 3656 | EGR Cooler Bypass Motor Close Control | I | — |
| 2 | 0.5 | GN/GY | 3654 | EGR Cooler Bypass Position Sensor Signal | I | — |
| 3 | — | — | — | Not Occupied | — | — |
| 4 | 0.5 | BK/BU | 3653 | EGR Cooler Bypass Position Sensor Low Reference | I | — |
| 5 | 0.5 | YE/GN | 3655 | EGR Cooler Bypass Motor Open Control | I | — |
| 6 | 0.5 | VT/RD | 3652 | EGR Cooler Bypass Position Sensor 5V Reference | I | — |

# P3 Backup Alarm (UZF)



68721

## Connector Part Information

Harness Type: Chassis Rear Right
OEM Connector: 1671610C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

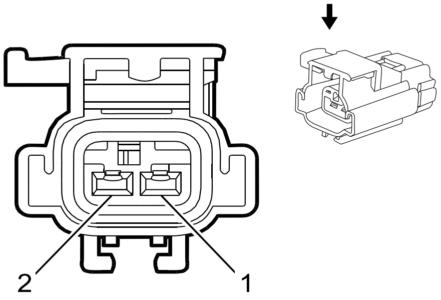
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## P3 Backup Alarm (UZF)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.75 | WH/GN | 1624 | Trailer Backup Lamp Control | I | — |
| B | 1 | BK | 1624 | Trailer Backup Lamp Control | I | — |

# P12 Horn



2323609

## Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 3626435C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 Series, Sealed (BK)

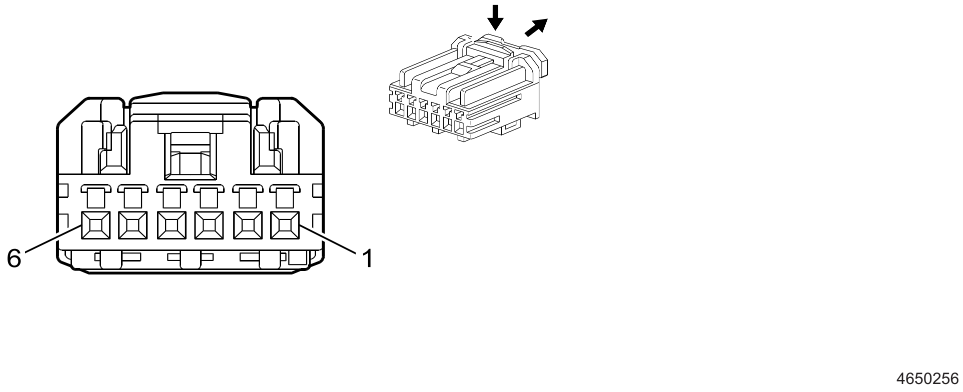
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## P12 Horn

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1 | BN/GY | 29 | Horn Control | I | — |
| 2 | 1 | BK | 85 | Cruise Control Engaged Indicator | I | — |

# P14 Passenger Air Bag Disabled Indicator



## Connector Part Information

Harness Type: Overhead Console
OEM Connector: 33358802
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 HCM Series (NA)

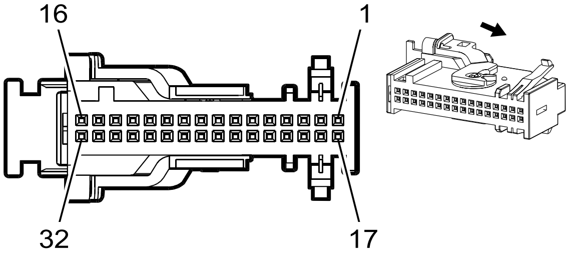
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## P14 Passenger Air Bag Disabled Indicator

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | D-BU | 2307 | Passenger Air Bag On Indicator Control | I | — |
| 2 | 0.5 | BK | 1050 | Ground | I | — |
| 3 | 0.35 | L-GN | 2308 | Passenger Air Bag Off Indicator Control | I | — |
| 4 | 0.35 | VT/WH | 1139 | Run/Crank Ignition 1 Voltage | I | — |
| 5 | 0.35 | VT/WH | 5234 | Passenger Seat Belt Indicator Control | I | — |
| 6 | — | — | — | Not Occupied | — | — |

# P16 Instrument Cluster



627214

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12198036
Service Connector: 88988405
Description: 32-Way F 0.64 Micro-Quadlock Series (BK)

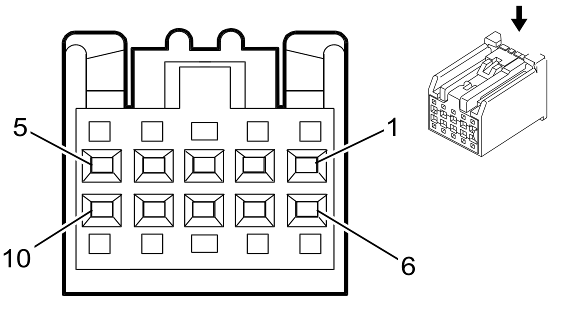
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13579993 | J-35616-64B (LT BU) | J-38125-12A | 144969-1 | Lear 25 | E | 2 |

## P16 Instrument Cluster

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/L-GN | 3997 | MOST Serial Data (-) | I | — |
| 2 | 0.5 | GY/VT | 3998 | MOST Serial Data (+) | I | — |
| 3 | 0.5 | GY/L-GN | 1102 | Low Speed GMLAN Serial Data #2 | I | — |
| 4 | — | — | — | Not Occupied | — | — |
| 5 | 0.35 | WH/VT | 3999 | MOST Control | I | — |
| 6 | — | — | — | Not Occupied | — | — |
| 7 | 0.5 | RD/GY | 2840 | Battery Positive Voltage | I | — |
| 8 | 0.5 | VT/BK | 1639 | Run/Crank Ignition 1 Voltage | I | — |
| 9 | — | — | — | Not Occupied | — | — |
| 10 | 0.5 | D-BU/YE | 68 | Low Coolant Level Indicator Control | I | — |
| 11 - 15 | — | — | — | Not Occupied | — | — |
| 16 | 0.35 | BN/WH | 419 | Check Engine Indicator Control | I | — |
| 17 | 0.5 | GY/VT | 3998 | MOST Serial Data (+) | I | — |
| 18 | 0.5 | WH/L-GN | 3997 | MOST Serial Data (-) | I | — |
| 19 | 0.5 | BK/WH | 1851 | Signal Ground | I | — |
| 20 | 0.5 | L-GN/BK | 3894 | Local Interconnect Network Serial Data Bus 12 | I | — |
| 21 - 23 | — | — | — | Not Occupied | — | — |
| 24 | 0.35 | VT | 185 | Low Washer Fluid Indicator Control | I | — |
| 25 - 31 | — | — | — | Not Occupied | — | — |
| 32 | 0.35 | L-GN/BN | 507 | Wait To Start Indicator Control | I | — |

## P17 Info Display Module X1 (IO3/IO5/IO6)



2180211

### Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13815336
Service Connector: 13577390
Description: 10-Way F 0.64 Kaizen Series (BK)

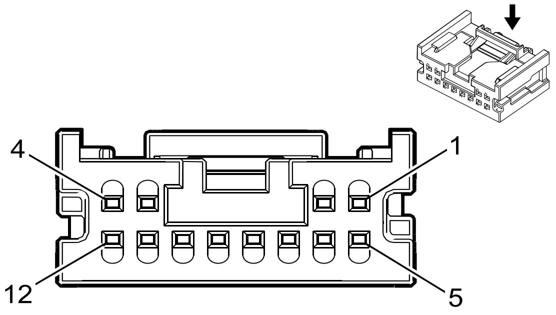
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |
| II | 13575867 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |

### P17 Info Display Module X1 (IO3/IO5/IO6)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | RD/GY | 2840 | Battery Positive Voltage | I | — |
| 2 | — | — | — | Not Occupied | — | — |
| 3 | 0.5 | GY/L-GN | 1102 | Low Speed GMLAN Serial Data #2 | I | — |
| 4 | — | — | — | Not Occupied | — | — |
| 5 | 0.5 | L-GN/D-BU | 7532 | Local Interconnect Network Serial Data Bus 10 | I | — |
| 6 - 7 | — | — | — | Not Occupied | — | — |
| 8 | 0.5 | L-GN/WH | 7527 | Local Interconnect Network Serial Data Bus 5 | I | — |
| 9 | — | — | — | Not Occupied | — | — |
| 10 | 0.35 | BK | 2550 | Ground | II | — |

# P17 Info Display Module X1 (IOB)



3824362

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33253016
Service Connector: 13588265
Description: 12-Way F Mini 50 Series (BK)

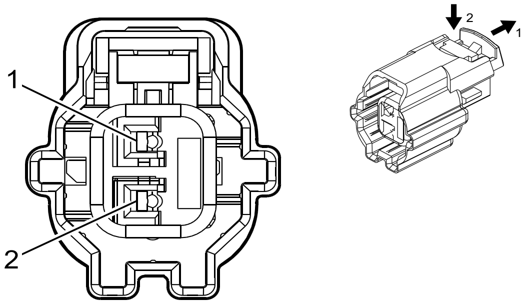
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19333221 | EL-35616-58 (BK) | J-38125-553 | Not Available | Not Available | Not Available | Not Available |

## P17 Info Display Module X1 (IOB)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BN | 9004 | — | I | — |
| 2 | 0.35 | BN/L-GN | 3364 | Navigation Display Reset Signal | I | — |
| 3 | 0.35 | GY/BN | 3761 | Infotainment Regulated Control | I | — |
| 4 | 0.35 | L-GN/BK | 2515 | Keypad Control | I | — |
| 5 | 0.35 | VT/GY | 1381 | LCD Dimming Signal | I | — |
| 6 | 0.35 | GY/D-BU | 3989 | Display Radio Bank Switch Dim Signal | I | — |
| 7 | 0.35 | BN/L-GN | 4502 | Video Display Request Signal | I | — |
| 8 | 0.35 | GY/BN | 9003 | — | I | — |
| 9 | 0.35 | BK | 2550 | Ground | I | — |
| 10 | 0.35 | BK | 2550 | Ground | I | — |
| 11 | 0.35 | BK/BN | 2518 | Keypad Low Reference | I | — |
| 12 | 0.35 | GY/D-BU | 3989 | Display Radio Bank Switch Dim Signal | I | — |

# P19AG Speaker - Left Front Door



4840334

## Connector Part Information

Harness Type: Driver Door
OEM Connector: 33380179
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 MX Series (BK)

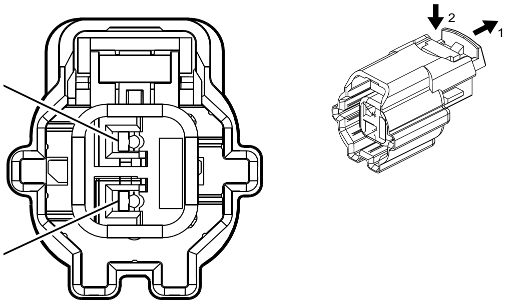
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## P19AG Speaker - Left Front Door

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1 | BN/D-BU | 118 | Left Front Speaker Signal (-) 1 | I | — |
| 2 | 1 | D-BU | 201 | Left Front Speaker Control (+) 1 | I | — |

## P19AH Speaker - Right Front Door



4840334

### Connector Part Information

Harness Type: Passenger Door
OEM Connector: 33380179
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 MX Series (BK)

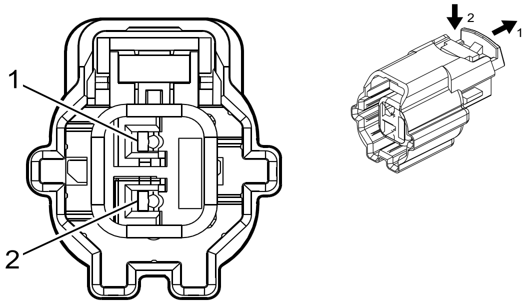
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### P19AH Speaker - Right Front Door

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1 | YE/BK | 117 | Right Front Speaker Signal (-) 1 | I | — |
| 2 | 1 | YE | 200 | Right Front Speaker Control (+) 1 | I | — |

# P19AL Speaker - Left Rear Door (Crew Cab)



4840334

## Connector Part Information

Harness Type: Left Rear Door
OEM Connector: 33380179
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 MX Series (BK)

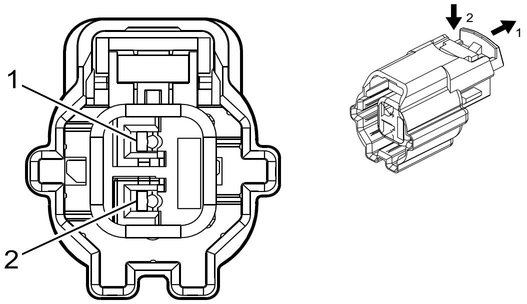
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## P19AL Speaker - Left Rear Door (Crew Cab)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1 | L-GN/BK | 116 | Left Rear Speaker Signal (-) | I | — |
| 2 | 1 | L-GN | 199 | Left Rear Speaker Control (+) | I | — |

# P19AM Speaker - Right Rear Door (Crew Cab)



4840334

## Connector Part Information

Harness Type: Right Rear Door
OEM Connector: 33380179
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 MX Series (BK)

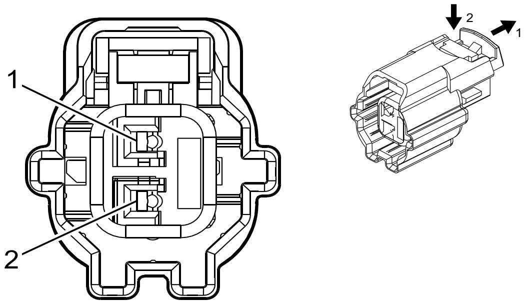
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## P19AM Speaker - Right Rear Door (Crew Cab)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1 | D-BU/BK | 115 | Right Rear Speaker Signal (-) | I | — |
| 2 | 1 | WH | 46 | Right Rear Speaker Control (+) | I | — |

## P19AN Speaker - Left Rear Trim Panel (Standard Cab)



4840334

### Connector Part Information

Harness Type: Body
OEM Connector: 33380179
Service Connector: 19370459
Description: 2-Way F 150 MX Series (BK)

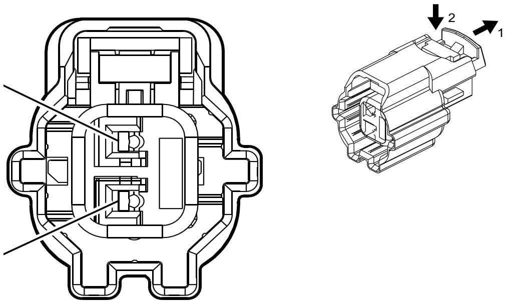
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### P19AN Speaker - Left Rear Trim Panel (Standard Cab)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | L-GN/BK | 116 | Left Rear Speaker Signal (-) | I | — |
| 2 | 0.5 | L-GN | 199 | Left Rear Speaker Control (+) | I | — |

## P19AP Speaker - Right Rear Trim Panel (Standard Cab)



4840334

### Connector Part Information

Harness Type: Body
OEM Connector: 33380179
Service Connector: 19370459
Description: 2-Way F 150 MX Series (BK)

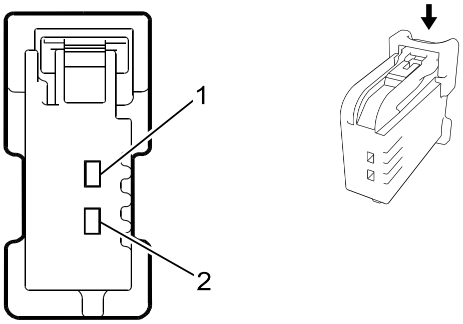
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### P19AP Speaker - Right Rear Trim Panel (Standard Cab)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | D-BU/BK | 115 | Right Rear Speaker Signal (-) | I | — |
| 2 | 0.5 | WH | 46 | Right Rear Speaker Control (+) | I | — |

## P19J Speaker - Left Instrument Panel (UQ3)



2173586

### Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13595207
Service Connector: 13584097
Description: 2-Way F 1.5 Series (BK)

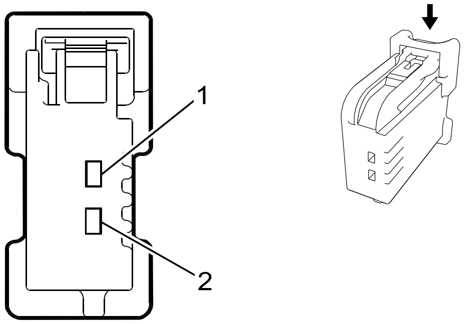
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### P19J Speaker - Left Instrument Panel (UQ3)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BN/D-BU | 118 | Left Front Speaker Signal (-) 1 | I | — |
| 2 | 0.5 | D-BU | 201 | Left Front Speaker Control (+) 1 | I | — |

# P19W Speaker - Right Instrument Panel (UQ3)



2173586

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13595207
Service Connector: 13584097
Description: 2-Way F 1.5 Series (BK)

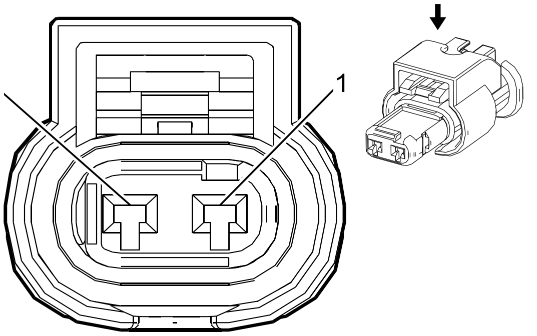
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## P19W Speaker - Right Instrument Panel (UQ3)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | YE/BK | 117 | Right Front Speaker Signal (-) 1 | I | — |
| 2 | 0.5 | YE | 200 | Right Front Speaker Control (+) 1 | I | — |

## Q2 A/C Compressor Clutch (C67)



2474752

### Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 13927761
Service Connector: 19329415
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

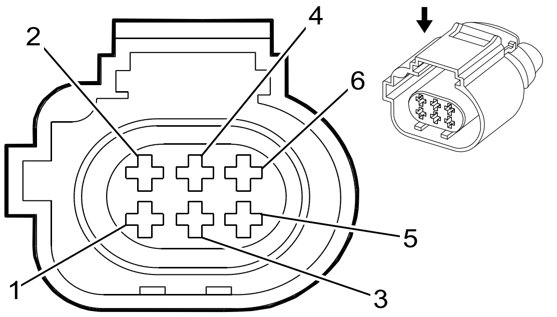
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### Q2 A/C Compressor Clutch (C67)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1 | BK | 550 | Ground | I | — |
| 2 | 0.75 | BN/L-GN | 59 | A/C Compressor Clutch Control | I | — |

## Q14 Exhaust Gas Recirculation Valve



2216905

### Connector Part Information

Harness Type: Engine
OEM Connector: 284716-5
Service Connector: 19354082
Description: 6-Way F 1.6 Micro-Timer Series, Sealed (GY)

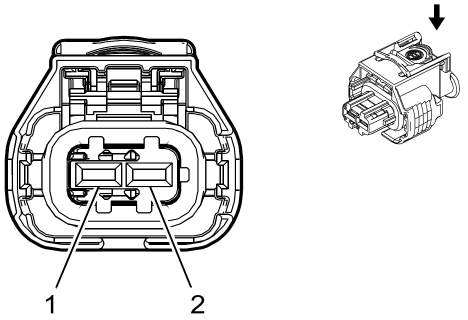
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### Q14 Exhaust Gas Recirculation Valve

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/VT | 5764 | Exhaust Gas Recirculation Valve Motor High Signal | I | — |
| 2 | 0.5 | BN/WH | 5763 | Exhaust Gas Recirculation Valve Sensor Signal | I | — |
| 3 | — | — | — | Not Occupied | — | — |
| 4 | 0.5 | BK/BN | 2753 | Exhaust Gas Recirculation Sensor Low Reference | I | — |
| 5 | 0.5 | VT/BK | 5746 | Exhaust Gas Recirculation Valve Motor Low Signal | I | — |
| 6 | 0.5 | BU/RD | 2702 | Exhaust Gas Recirculation 5V Reference 2 | I | — |

# Q17A Fuel Injector 1



2845578

## Connector Part Information

Harness Type: Engine
OEM Connector: 13343445
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed (BK)

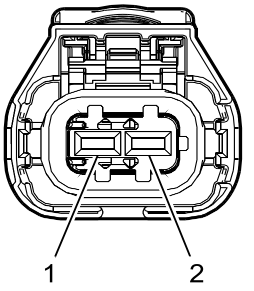
## Terminal Part Information

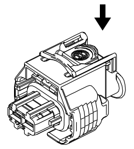
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## Q17A Fuel Injector 1

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BN | 4801 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 1 | I | — |
| 2 | 0.75 | BN/WH | 4901 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1 | I | — |

# Q17B Fuel Injector 2





## Connector Part Information

Harness Type: Engine
OEM Connector: 13343445
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed (BK)

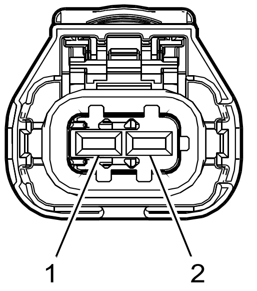
## Terminal Part Information

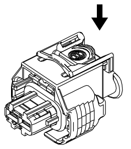
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## Q17B Fuel Injector 2

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BU | 4802 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 2 | I | — |
| 2 | 0.75 | BU/GY | 4902 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2 | I | — |

# Q17C Fuel Injector 3





2845578

## Connector Part Information

Harness Type: Engine
OEM Connector: 13343445
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed (BK)

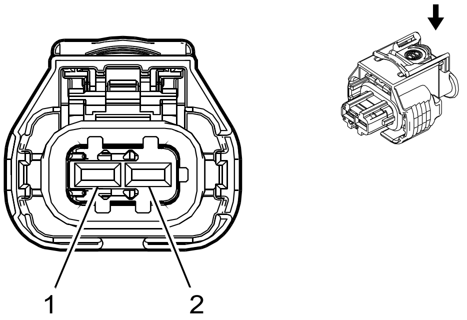
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## Q17C Fuel Injector 3

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | GN | 4803 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 3 | I | — |
| 2 | 0.75 | GN/GY | 4903 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3 | I | — |

# Q17D Fuel Injector 4



2845578

## Connector Part Information

Harness Type: Engine
OEM Connector: 13343445
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed (BK)

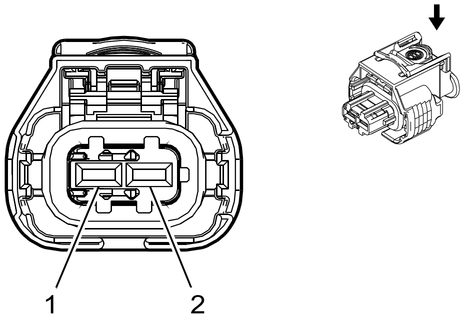
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## Q17D Fuel Injector 4

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | GY/BU | 4804 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 4 | I | — |
| 2 | 0.75 | BU/WH | 4904 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4 | I | — |

# Q17E Fuel Injector 5



2845578

## Connector Part Information

Harness Type: Engine
OEM Connector: 13343445
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed (BK)

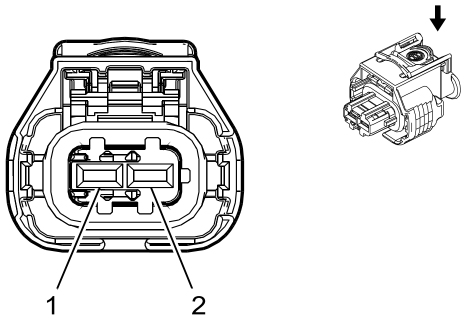
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## Q17E Fuel Injector 5

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | WH/GN | 4805 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 5 | I | — |
| 2 | 0.75 | GN/WH | 4905 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5 | I | — |

# Q17F Fuel Injector 6



### Connector Part Information

Harness Type: Engine
OEM Connector: 13343445
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed (BK)

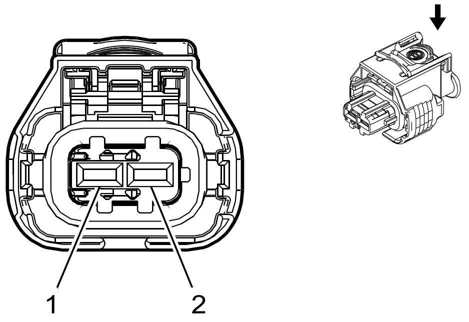
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## Q17F Fuel Injector 6

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | VT/GN | 4806 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 6 | I | — |
| 2 | 0.75 | VT/GY | 4906 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 6 | I | — |

# Q17G Fuel Injector 7



2845578

## Connector Part Information

Harness Type: Engine
OEM Connector: 13343445
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed (BK)

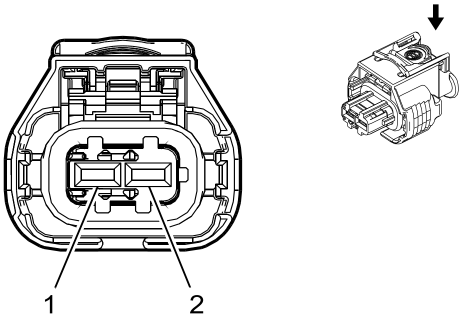
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### Q17G Fuel Injector 7

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | YE/GY | 4807 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 7 | I | — |
| 2 | 0.75 | WH/YE | 4907 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 7 | I | — |

# Q17H Fuel Injector 8



2845578

## Connector Part Information

Harness Type: Engine
OEM Connector: 13343445
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed (BK)

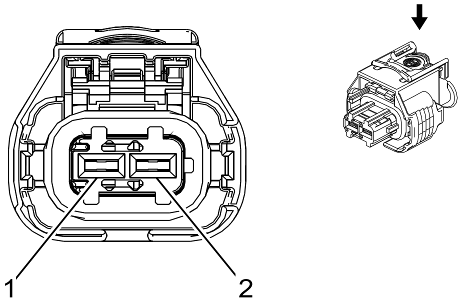
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## Q17H Fuel Injector 8

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | GY | 4808 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 8 | I | — |
| 2 | 0.75 | GY/WH | 4908 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 8 | I | — |

# Q18A Fuel Pressure Regulator 1



2577394

## Connector Part Information

- Harness Type: Engine Left
- OEM Connector: 13343443
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 2.8 Series, Sealed (BK)

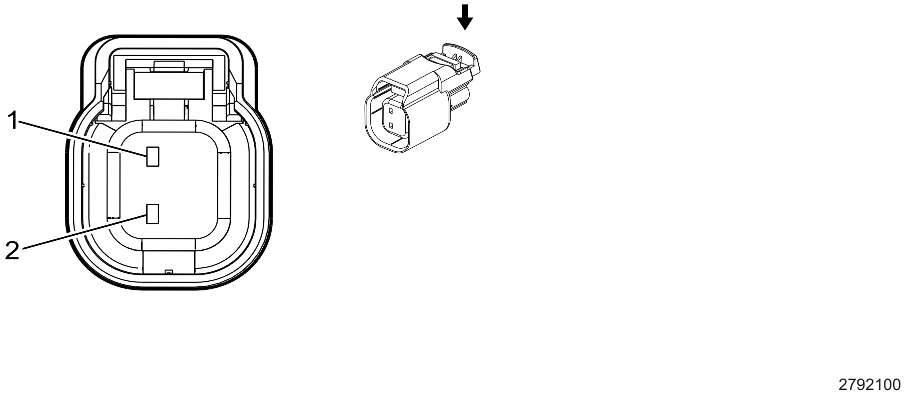
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## Q18A Fuel Pressure Regulator 1

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BN/BK | 2929 | Fuel Metering Valve Low Control | I | — |
| 2 | 0.5 | YE | 2928 | Fuel Metering Valve High Control | I | — |

# Q18B Fuel Pressure Regulator 2



## Connector Part Information

Harness Type: Engine
OEM Connector: 13581410
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed (BK)

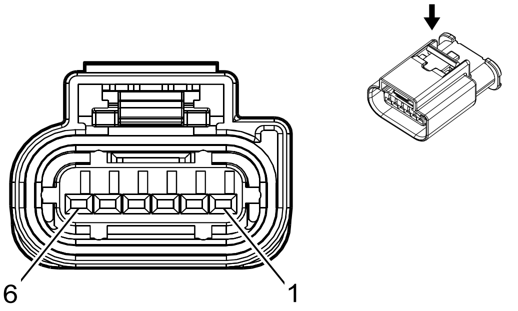
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## Q18B Fuel Pressure Regulator 2

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK/YE | 2834 | Fuel Rail Pressure Solenoid Low Reference | I | — |
| 2 | 0.75 | BU/WH | 2530 | Fuel Rail Pressure Solenoid Control | I | — |

# Q20 Intake Air Flow Valve



3747579

## Connector Part Information

Harness Type: Engine
OEM Connector: 13507087
Service Connector: 19352911
Description: 6-Way F 1.2 MCON Series, Sealed (BK)

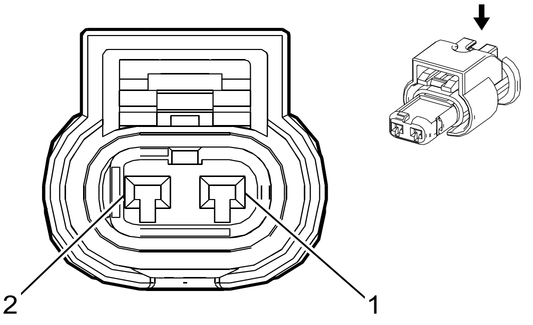
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## Q20 Intake Air Flow Valve

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | YE | 581 | Throttle Actuator Control Open | I | — |
| 2 | 0.5 | BN/WH | 582 | Throttle Actuator Control Close | I | — |
| 3 | 0.5 | BU/WH | 3630 | Throttle Position Sensor (SENT1) Signal | I | — |
| 4 | 0.5 | BK/BN | 2752 | Throttle Position Sensor Low Reference | I | — |
| 5 | 0.5 | BN/RD | 2701 | Throttle Position Sensor 5V Reference | I | — |
| 6 | — | — | — | Not Occupied | — | — |

# Q46 A/C Compressor Solenoid Valve (C67)



2851901

## Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 13927762
Service Connector: 19299928
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

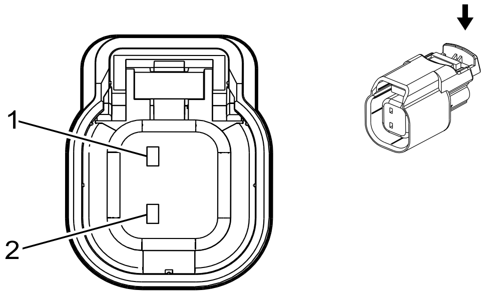
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## Q46 A/C Compressor Solenoid Valve (C67)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | D-BU/YE | 7574 | Electric Variable Displacement Control | I | — |
| 2 | 0.75 | D-BU/BN | 7573 | Electric Variable Displacement Supply | I | — |

## Q61 Reductant Injector



2792100

### Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 35011347
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed (BK)

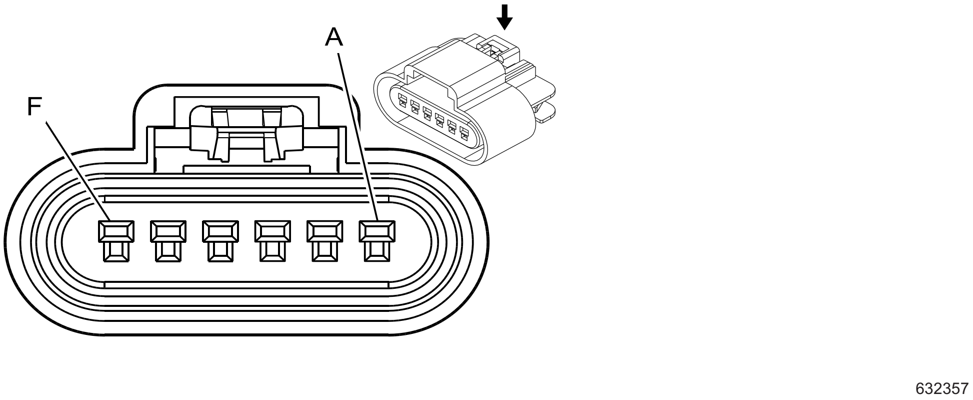
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### Q61 Reductant Injector

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BN | 3099 | DEF Dosing Valve High Control | I | — |
| 2 | 0.75 | BN/WH | 3100 | DEF Dosing Valve Low Control | I | — |

# Q85 Cooling Fan Clutch



## Connector Part Information

Harness Type: Engine Cooling Fan
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F (BK)

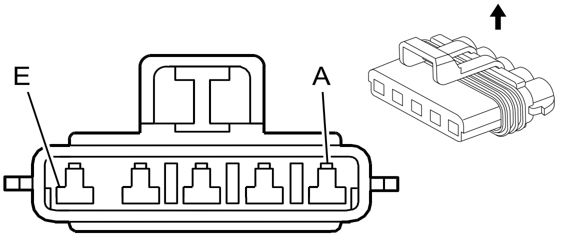
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## Q85 Cooling Fan Clutch

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | — | RD | 2368 | Cooling Fan Control Signal | I | — |
| B | — | — | — | — | I | — |
| C | — | OG | 2365 | Cooling Fan Speed 5V Reference | I | — |
| D | — | WH | 2364 | Cooling Fan Speed Signal | I | — |
| E | — | BK | 6141 | Cooling Fan Speed Low Reference | I | — |
| F | — | GN | 550 | Ground | I | — |

## Q101 Rear Air Suspension Control Valve (JPZ)



243503

### Connector Part Information

Harness Type: Chassis
OEM Connector: 1661375C2
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 280 Metri-Pack Series, Sealed

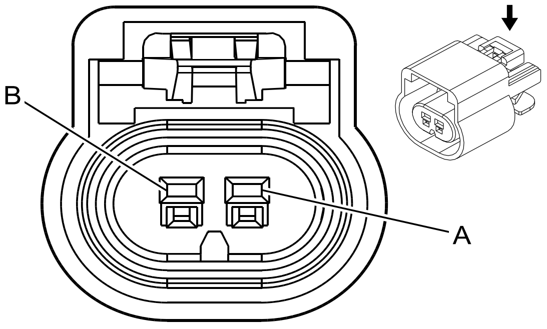
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### Q101 Rear Air Suspension Control Valve (JPZ)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | — | — | — | Not Occupied | — | — |
| B | 0.75 | GY | 4462 | Soft Top Bootwell Sensor Signal Left | I | — |
| C | 0.75 | GY | 4461 | Soft Top Bootwell Sensor Signal Right | I | — |
| D - E | — | — | — | Not Occupied | — | — |

# R6A Terminating Resistor - High Speed Bus



523630

## Connector Part Information

Harness Type: Chassis
OEM Connector: 3683465C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 GT Series, Sealed (BK)

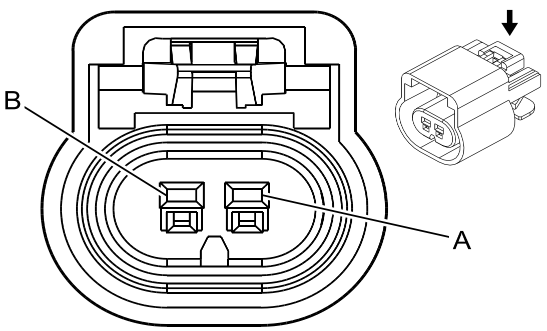
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## R6A Terminating Resistor - High Speed Bus

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.5 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | — |
| B | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | — |

## R6F Terminating Resistor - High Speed Extension Bus 2



523630

### Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13510085
Service Connector: 13580114
Description: 2-Way F 150 GT Series, Sealed (BK)

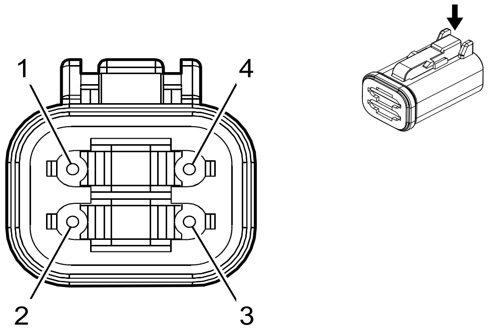
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### R6F Terminating Resistor - High Speed Extension Bus 2

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.5 | D-BU/L-GN | 1304 | High Speed GMLAN Serial Data (+)9 | I | — |
| B | 0.5 | WH/L-GN | 1305 | High Speed GMLAN Serial Data (-)9 | I | — |

# R50 Brake Booster Diode



5168702

## Connector Part Information

Harness Type: Brake Booster
OEM Connector: 3991593C1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.5 DT Series, Sealed (GY)

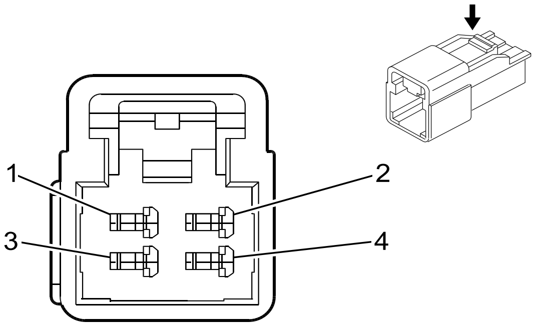
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-66 (YE) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## R50 Brake Booster Diode

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | — | — | — | Not Occupied | — | — |
| 2 | 0.75 | WH/BU | 6311 | Cruise/ETC/TCC Brake Signal | I | — |
| 3 | 1 | GY | 90 | Right Mirror Motor Left Control | I | — |
| 4 | 1 | GY | 90 | Right Mirror Motor Left Control | II | — |

# S3 Transmission Shift Lever



2099222

## Connector Part Information

Harness Type: Steering Column
OEM Connector: HCMDWSB-04-K
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M HCM Series (BK)

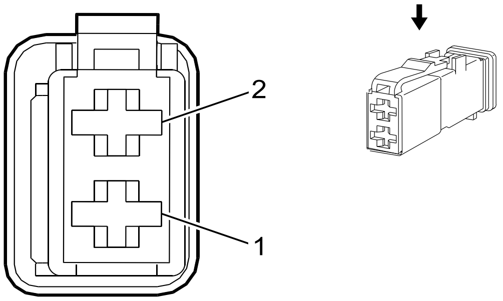
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## S3 Transmission Shift Lever

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BU/GY | 553 | Shift Select Switch Performance Signal | I | — |
| 2 | 0.35 | BK/WH | 1851 | Signal Ground | I | — |
| 3 | 0.35 | VT/YE | 5526 | Tap Up/Tap Down Switch Signal | I | — |
| 4 | 0.35 | BK/WH | 1851 | Signal Ground | I | — |

# S5 Center Console Compartment Lamp Switch (D07)



1974969

## Connector Part Information

Harness Type: Floor Console
OEM Connector: 10787635
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Timer Series (NA)

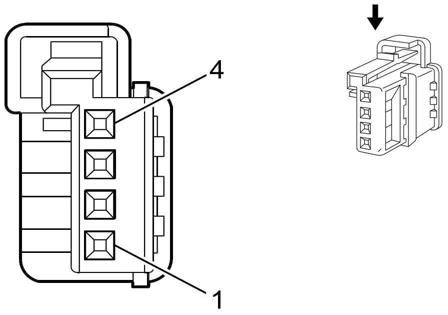
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## S5 Center Console Compartment Lamp Switch (D07)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/BN | 6815 | Inadvertent Power Control | I | — |
| 2 | 0.5 | WH/BN | 6815 | Inadvertent Power Control | I | — |

## S12 Dome Lamp Switch



2667612

### Connector Part Information

Harness Type: Overhead Console
OEM Connector: 13862319
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64 Micro-Quadlock Series (BN)

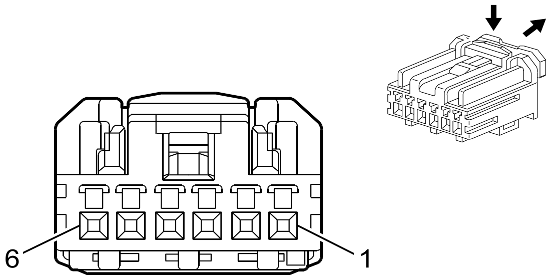
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### S12 Dome Lamp Switch

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BK | 1050 | Ground | I | — |
| 2 | 0.35 | GY/L-GN | 328 | Interior Lamp Defeat Switch Signal | I | — |
| 3 | 0.35 | GY | 156 | Courtesy Lamp Switch Signal | I | — |
| 4 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | — |

# S13D Door Lock Switch - Driver (A31)



4650256

## Connector Part Information

Harness Type: Driver Door Trim
OEM Connector: 33315784
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 HCM Series (BK)

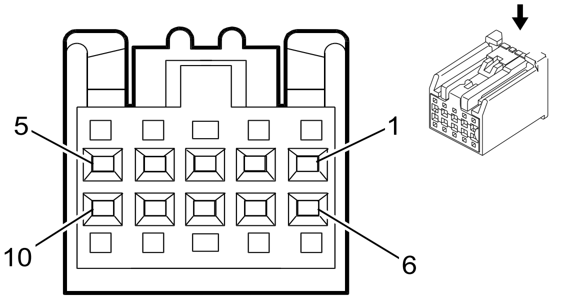
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## S13D Door Lock Switch - Driver (A31)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | — | — | — | Not Occupied | — | — |
| 2 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | — |
| 3 | 0.35 | BN/YE | 780 | Driver Door Lock Switch Lock Signal | I | — |
| 4 | 0.35 | BN/WH | 781 | Driver Door Lock Switch Unlock Signal | I | — |
| 5 | 0.35 | BK | 1150 | Ground | I | — |
| 6 | — | — | — | Not Occupied | — | — |

## S13D Door Lock Switch - Driver (-A31)



2180211

### Connector Part Information

Harness Type: Driver Door Trim
OEM Connector: 13815336
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Kaizen Series (BK)

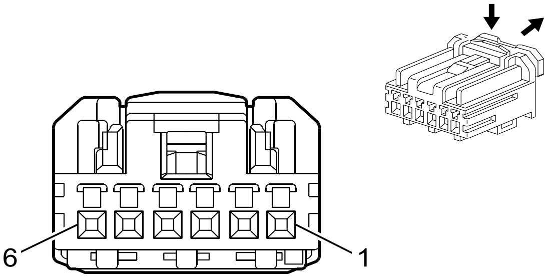
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### S13D Door Lock Switch - Driver (-A31)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 1150 | Ground | I | — |
| 2 - 3 | — | — | — | Not Occupied | — | — |
| 4 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | — |
| 5 | — | — | — | Not Occupied | — | — |
| 6 | 0.35 | BN/YE | 780 | Driver Door Lock Switch Lock Signal | I | — |
| 7 | 0.35 | BN/WH | 781 | Driver Door Lock Switch Unlock Signal | I | — |
| 8 - 10 | — | — | — | Not Occupied | — | — |

## S13P Door Lock Switch - Passenger (A31)



4650256

### Connector Part Information

Harness Type: Passenger Door Trim
OEM Connector: 33315784
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 HCM Series (BK)

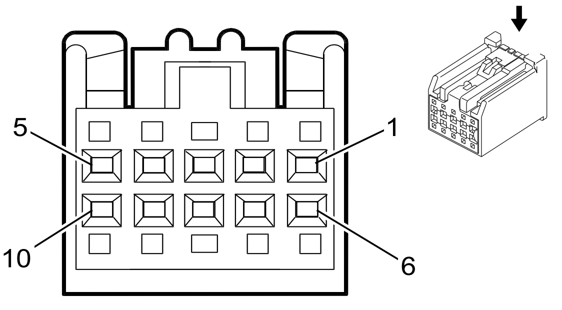
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### S13P Door Lock Switch - Passenger (A31)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | — | — | — | Not Occupied | — | — |
| 2 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | — |
| 3 | 0.35 | YE/VT | 244 | Passenger Door Lock Switch Lock Control | I | — |
| 4 | 0.35 | BN/VT | 245 | Passenger Door Lock Switch Unlock Control | I | — |
| 5 | 0.35 | BK | 1250 | Ground | I | — |
| 6 | — | — | — | Not Occupied | — | — |

# S13P Door Lock Switch - Passenger (-A31)



2180211

## Connector Part Information

Harness Type: Passenger Door Trim
OEM Connector: 13815336
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Kaizen Series (BK)

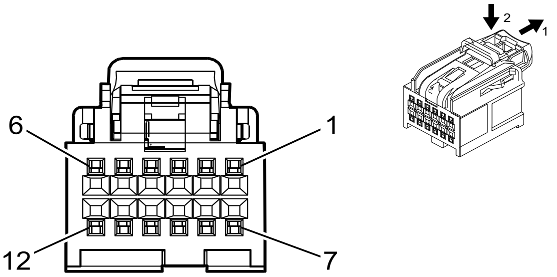
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## S13P Door Lock Switch - Passenger (-A31)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 1250 | Ground | I | — |
| 2 - 3 | — | — | — | Not Occupied | — | — |
| 4 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | — |
| 5 | — | — | — | Not Occupied | — | — |
| 6 | 0.35 | YE/VT | 244 | Passenger Door Lock Switch Lock Control | I | — |
| 7 | 0.35 | BN/VT | 245 | Passenger Door Lock Switch Unlock Control | I | — |
| 8 - 10 | — | — | — | Not Occupied | — | — |

## S30 Headlamp Switch



4975223

### Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35016616
Service Connector: 13519750
Description: 12-Way F 0.64 OCS Series (BK)

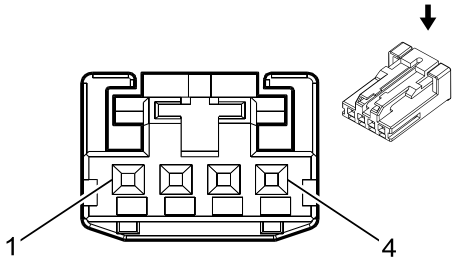
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300660 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

### S30 Headlamp Switch

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/VT | 103 | Headlamp Switch On Signal | I | — |
| 2 | 0.5 | YE | 6817 | LED Backlight Dimming Control | I | — |
| 3 | 0.35 | L-GN/BN | 306 | Headlamp Switch Headlamps Off Signal Control | I | — |
| 4 | — | — | — | Not Occupied | — | — |
| 5 | 0.35 | L-GN/GY | 13 | Headlamp Switch Park Lamp Signal | I | — |
| 6 | — | — | — | Not Occupied | — | — |
| 7 | 0.35 | BK/YE | 5005 | Instrument Panel Lamp Dimmer Switch Low Reference | I | — |
| 8 | 0.5 | BK | 1850 | Ground | I | — |
| 9 | — | — | — | Not Occupied | — | — |
| 10 | 0.35 | D-BU/GY | 192 | Front Fog Lamp Switch Signal | I | — |
| 11 | 0.35 | YE/GY | 44 | Instrument Panel Lamp Dimmer Switch Signal | I | — |
| 12 | 0.35 | D-BU/RD | 1688 | 5V Reference | I | — |

# S32D Seat Heating Switch - Driver (KA1)



2717162

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13853727
Service Connector: 19367524
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

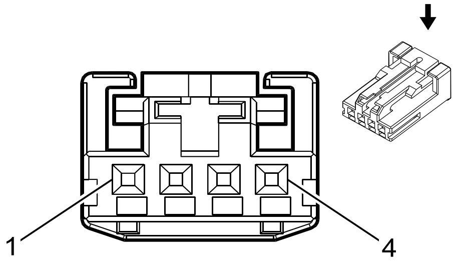
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## S32D Seat Heating Switch - Driver (KA1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BK | 1850 | Ground | I | — |
| 2 | — | — | — | Not Occupied | — | — |
| 3 | 0.5 | L-GN/WH | 7527 | Local Interconnect Network Serial Data Bus 5 | I | — |
| 4 | 0.35 | RD/GY | 2840 | Battery Positive Voltage | I | — |

# S32P Seat Heating Switch - Passenger (KA1)



2717162

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13853727
Service Connector: 19367524
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

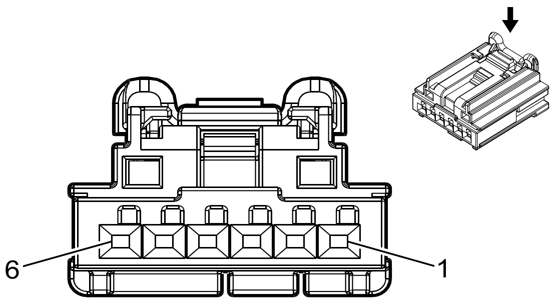
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## S32P Seat Heating Switch - Passenger (KA1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | RD/GY | 2840 | Battery Positive Voltage | I | — |
| 2 | 0.5 | L-GN/WH | 7527 | Local Interconnect Network Serial Data Bus 5 | I | — |
| 3 | — | — | — | Not Occupied | — | — |
| 4 | 0.5 | BK | 1850 | Ground | I | — |

# S39 Ignition Switch



3960313

### Connector Part Information

Harness Type: Steering Column
OEM Connector: 13583825
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Generation Y Series (BK)

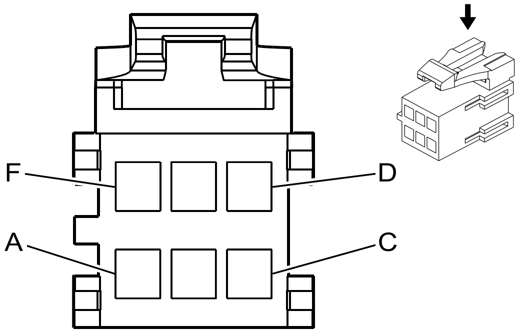
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## S39 Ignition Switch

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | — | — | — | Not Occupied | — | — |
| 2 | 0.5 | VT/BK | 3 | Run/Crank Ignition 1 Voltage | I | — |
| 3 | 0.5 | VT/YE | 4 | Accessory Ignition Voltage | I | — |
| 4 | 0.35 | RD/BU | 540 | Battery Positive Voltage | I | — |
| 5 | 0.5 | WH/VT | 1020 | Off/Run/Crank Ignition Voltage | I | — |
| 6 | 0.5 | WH/BK | 1073 | Ignition Key Resistor Signal | I | — |

# S40 Passenger Air Bag Disable Switch (C99)



362753

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15305286
Service Connector: 15306014
Description: 6-Way F 150 Metri-Pack Series (YE)

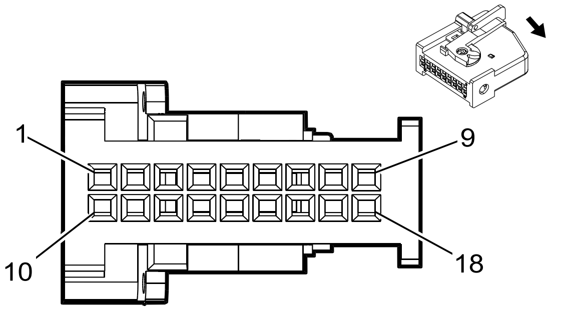
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## S40 Passenger Air Bag Disable Switch (C99)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35 | D-BU/OG | 7328 | Passenger IP Module Disable Switch Low Reference | I | — |
| B - C | — | — | — | Not Occupied | — | — |
| D | 0.35 | VT/OG | 371 | Passenger IP Module Disable Switch Signal | I | — |
| E - F | — | — | — | Not Occupied | — | — |

# S48A Multifunction Switch - Instrument Panel X1



3240103

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10820548
Service Connector: 13584100
Description: 18-Way F 0.64 Series (BK)

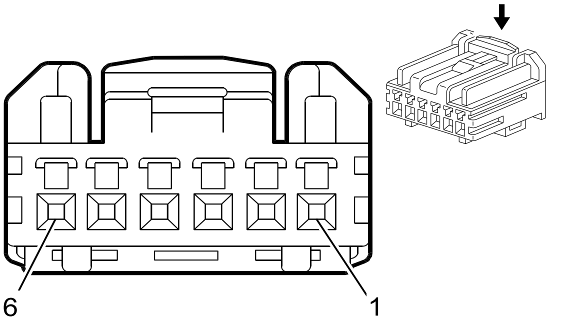
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575782 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| II | 13575783 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

## S48A Multifunction Switch - Instrument Panel X1

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE | 6817 | LED Backlight Dimming Control | II | — |
| 2 | 0.35 | WH | 6816 | Indicator Dimming Control | II | — |
| 3 | — | — | — | Not Occupied | — | — |
| 4 | 0.5 | VT/WH | 239 | Run/Crank Ignition 1 Voltage | I | — |
| 5 | 0.5 | BN/L-GN | 603 | A/C Low Pressure Switch Signal | I | — |
| 6 | — | — | — | Not Occupied | — | — |
| 7 | 0.5 | BN/WH | 1429 | Standing Lamp Relay Control | I | — |
| 8 - 9 | — | — | — | Not Occupied | — | — |
| 10 | 0.5 | WH/D-BU | 964 | — | I | — |
| 11 | 0.5 | L-GN/GY | 963 | — | I | — |
| 12 | 0.5 | RD/WH | 961 | — | I | — |
| 13 | 0.5 | YE/WH | 962 | — | I | — |
| 14 | 0.5 | BK | 1850 | Ground | I | — |
| 15 - 16 | — | — | — | Not Occupied | — | — |
| 17 | 0.35 | D-BU/VT | 1788 | Traction Control Switch Signal 1 | II | — |
| 18 | 0.5 | GY | 158 | Cargo Lamp Switch Signal | I | — |

## S48A Multifunction Switch - Instrument Panel X2



1664548

### Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15488869
Service Connector: 19115655
Description: 6-Way F 0.64 HCM Series (BK)

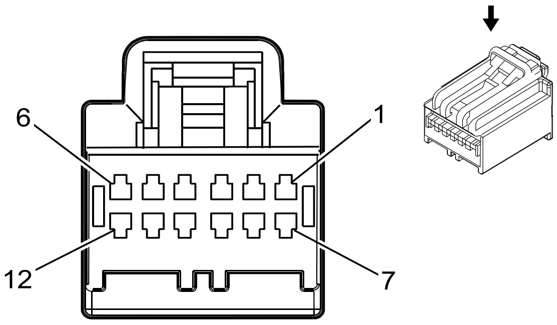
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### S48A Multifunction Switch - Instrument Panel X2

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BN/L-GN | 4311 | Power Take Off Enable In Cab Switch Normally Closed Signal | I | — |
| 2 | 0.35 | L-GN/WH | 488 | Power Take Off Control Switch | I | — |
| 3 | 0.35 | VT/L-GN | 1739 | Run/Crank Ignition 1 Voltage | I | — |
| 4 | 0.5 | L-GN/YE | 2081 | Exhaust Brake Switch Control | I | — |
| 5 | 0.35 | L-GN/WH | 3438 | Exhaust Brake Switch Signal | I | — |
| 6 | — | — | — | Not Occupied | — | — |

## S52 Outside Rearview Mirror Switch (DPN)



3556661

### Connector Part Information

Harness Type: Driver Door Trim
OEM Connector: 13950638
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 64 Series, Sealed (GY)

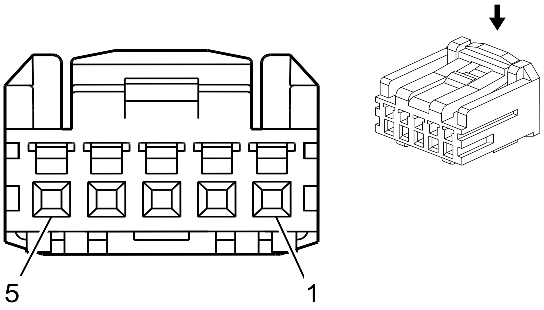
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### S52 Outside Rearview Mirror Switch (DPN)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | YE/VT | 3397 | Passenger Mirror Motor Up (+) Down (-) Control | I | — |
| 2 | 0.75 | WH/L-GN | 3412 | Driver Mirror Motor Fold In Control | I | — |
| 3 | 0.75 | YE/BN | 3391 | Driver Mirror Motor Common Control | I | — |
| 4 | 0.75 | L-GN/BK | 3396 | Passenger Mirror Motor Right (+) Left (-) Control | I | — |
| 5 | 0.75 | BK | 1150 | Ground | I | — |
| 6 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | — |
| 7 | 0.75 | VT/D-BU | 3390 | Driver Mirror Motor Up (+) Down (-) Control | I | — |
| 8 | 0.75 | WH | 3398 | Passenger Mirror Motor Common Control | I | — |
| 9 | 0.75 | GY/WH | 3411 | Driver Mirror Motor Fold Out Control | I | — |
| 10 | 0.75 | BN/BK | 3389 | Driver Mirror Motor Right (+) Left (-) Control | I | — |
| 11 | — | — | — | Not Occupied | — | — |
| 12 | 0.75 | RD/VT | 1940 | Battery Positive Voltage | I | — |

# S63 Roof Beacon Switch (TRW)



1673494

## Connector Part Information

Harness Type: Overhead Console
OEM Connector: 15491277
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way F HCM Series (BK)

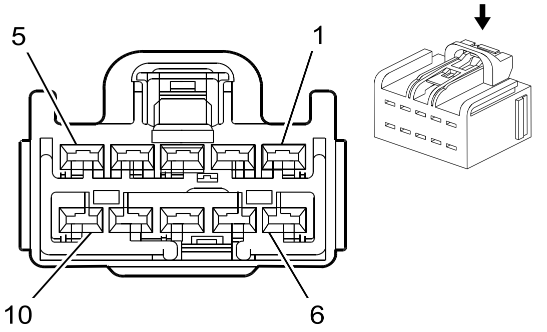
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## S63 Roof Beacon Switch (TRW)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 1050 | Ground | I | — |
| 2 | 0.5 | YE | 6817 | LED Backlight Dimming Control | I | — |
| 3 | 0.5 | RD/YE | 240 | Battery Positive Voltage | I | — |
| 4 | 0.5 | WH/BK | 5990 | Emergency Lamp Switch Signal | I | — |
| 5 | — | — | — | Not Occupied | — | — |

## S64D Seat Adjuster Switch - Driver X1 (A95/AG1)



1856796

### Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 7283-6457-40
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F YESC Kaizen Series (L-GY)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

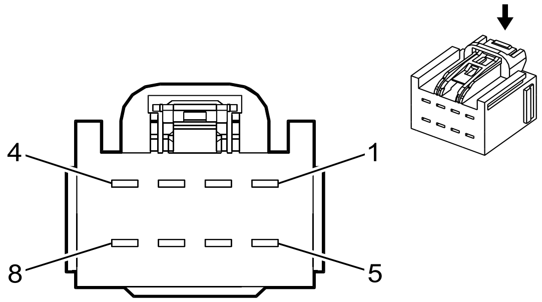
### S64D Seat Adjuster Switch - Driver X1 (A95/AG1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5<br>1.5 | L-GN/BN<br>L-GN/BN | 1518<br>286 | Power Seat Front Vertical Up Switch Signal<br>Driver Power Seat Front Vertical Motor Up Control | I<br>I | CREW CAB 43<br>STANDARD CAB 03 |
| 2 | 2.5 | BK | 1150 | Ground | I | — |
| 3 | 0.5<br>1.5 | YE/BN<br>YE/L-BU | 1522<br>285 | Power Seat Horizontal Forward Switch Signal<br>Driver Power Seat Horizontal Motor Forward Control | I<br>I | CREW CAB 43<br>STANDARD CAB 03 |
| 4 | 0.5<br>1.5 | GY/BK<br>L-GN/YE | 1269<br>276 | Power Seat Recline Forward Switch Signal<br>Driver Power Seat Recline Motor Forward Control | I<br>I | CREW CAB 43<br>STANDARD CAB 03 |
| 5 | 0.5<br>1.5 | L-BU/VT<br>L-BU/VT | 1520<br>287 | Power Seat Front Vertical Down Switch Signal<br>Driver Power Seat Front Vertical Motor Down Control | I<br>I | CREW CAB 43<br>STANDARD CAB 03 |
| 6 | 0.35<br>2.5 | BK<br>RD/YE | 1150<br>5040 | Ground<br>Battery Positive Voltage | I<br>I | CREW CAB 43<br>STANDARD CAB 03 |
| 7 | 0.5<br>1.5 | GY/L-GN<br>GY/L-GN | 1523<br>284 | Power Seat Horizontal Rearward Switch Signal<br>Driver Power Seat Horizontal Motor Rearward Control | I<br>I | CREW CAB 43<br>STANDARD CAB 03 |
| 8 | 0.5<br>1.5 | YE<br>YE | 1519<br>282 | Power Seat Rear Vertical Up Switch Signal<br>Driver Power Seat Rear Vertical Motor Up Control | I<br>I | CREW CAB 43<br>STANDARD CAB 03 |

## S64D Seat Adjuster Switch - Driver X1 (A95/AG1) (cont'd)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 9 | 0.5<br>1.5 | L-GN/GY<br>L-BU/YE | 1270<br>277 | Power Seat Recline Rearward Switch Signal<br>Driver Power Seat Recline Motor Rearward Control | I<br>I | CREW CAB 43<br>STANDARD CAB 03 |
| 10 | 0.5<br>1.5 | YE/L-BU<br>GY/L-BU | 1521<br>283 | Power Seat Rear Vertical Down Switch Signal<br>Driver Power Seat Rear Vertical Motor Down Control | I<br>I | CREW CAB 43<br>STANDARD CAB 03 |

## S64D Seat Adjuster Switch - Driver X2 (A95/AG1)



2832199

### Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 7283-3243-40
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series (L-GY)

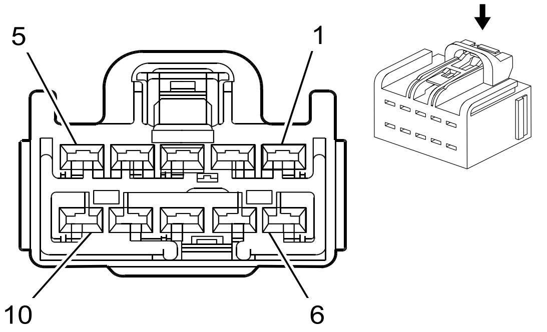
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### S64D Seat Adjuster Switch - Driver X2 (A95/AG1)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH | 1066 | Driver Seat Lumbar Up Switch Signal | I | — |
| 2 | 0.5<br>1.5 | YE<br>L-BU | 1065<br>611 | Driver Seat Lumbar Forward Switch Signal<br>Driver Power Seat Lumbar Motor Forward Control | I<br>I | CREW CAB 43<br>STANDARD CAB 03 |
| 3 - 4 | — | — | — | Not Occupied | — | — |
| 5 | 0.5 | YE/BK | 1067 | Driver Seat Lumbar Down Switch Signal | I | — |
| 6 | 0.5<br>1.5 | L-BU/VT<br>VT | 1064<br>610 | Driver Seat Lumbar Rearward Switch Signal<br>Driver Power Seat Lumbar Motor Rearward Control | I<br>I | CREW CAB 43<br>STANDARD CAB 03 |
| 7 - 8 | — | — | — | Not Occupied | — | — |

# S64P Seat Adjuster Switch - Passenger X1 (A95)



1856796

## Connector Part Information

Harness Type: Passenger Seat Cushion
OEM Connector: 7283-6457-40
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F YESC Kaizen Series (L-GY)

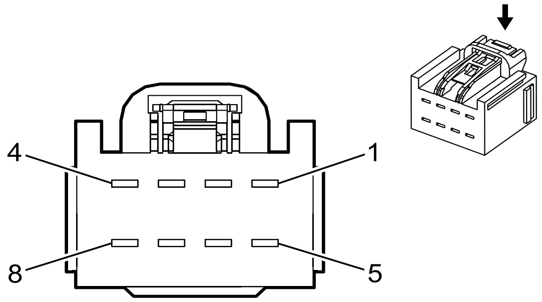
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## S64P Seat Adjuster Switch - Passenger X1 (A95)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | — | — | — | Not Occupied | — | — |
| 2 | 1.5 | L-GN | 76 | Passenger Power Seat Recline Motor Forward Control | I | — |
| 3 | 1.5 | YE/WH | 296 | Passenger Power Seat Horizontal Motor Forward Control | I | — |
| 4 | — | — | — | Not Occupied | — | — |
| 5 | 2.5 | BK | 1250 | Ground | I | — |
| 6 | — | — | — | Not Occupied | — | — |
| 7 | 1.5 | L-BU/BN | 77 | Passenger Power Seat Recline Motor Rearward Control | I | — |
| 8 | — | — | — | Not Occupied | — | — |
| 9 | 1.5 | YE/L-BU | 290 | Passenger Power Seat Horizontal Motor Rearward Control | I | — |
| 10 | 2.5 | RD/BN | 1440 | Battery Positive Voltage | I | — |

# S64P Seat Adjuster Switch - Passenger X2 (A95)



2832199

## Connector Part Information

- Harness Type: Passenger Seat Cushion
- OEM Connector: 7283-3243-40
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 2.8 Series (L-GY)

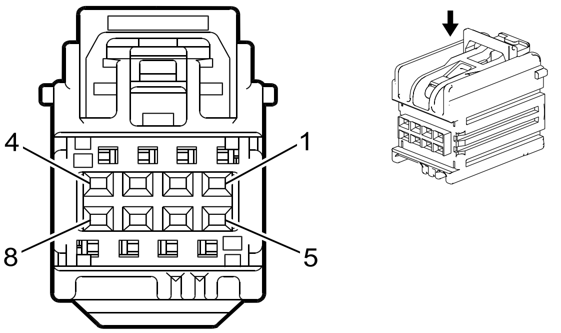
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## S64P Seat Adjuster Switch - Passenger X2 (A95)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 2 | — | — | — | Not Occupied | — | — |
| 3 | 1.5 | VT | 210 | Passenger Power Seat Lumbar Motor Rearward Control | I | — |
| 4 - 5 | — | — | — | Not Occupied | — | — |
| 6 | 1.5 | L-BU | 211 | Passenger Power Seat Lumbar Motor Forward Control | I | — |
| 7 - 8 | — | — | — | Not Occupied | — | — |

# S76 Trailer Brake Control Switch (J71)



1716517

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13518475
Service Connector: 13576542
Description: 8-Way F YESC Kaizen Series (BK)

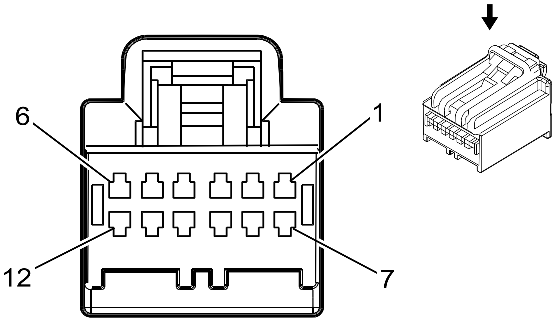
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## S76 Trailer Brake Control Switch (J71)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 2 | — | — | — | Not Occupied | — | — |
| 3 | 0.5 | D-BU/RD | 7632 | Integrated Trailer Brake Controller Switch 5V Reference | I | — |
| 4 | 0.5 | YE | 7635 | Integrated Trailer Brake Controller Manual Apply Signal | I | — |
| 5 | 0.5 | BN | 7634 | Integrated Trailer Brake Controller Redundant Manual Apply Signal | I | — |
| 6 | 0.5 | L-GN/BK | 7633 | Integrated Trailer Brake Controller User Gain Signal | I | — |
| 7 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | — |
| 8 | 0.5 | BK/BN | 7631 | Integrated Trailer Brake Controller Switch Low Reference | I | — |

## S77 Transfer Case Shift Control Switch (NQF)



3556661

### Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13587624
Service Connector: 19151154
Description: 12-Way F 64 Series, Sealed (GY)

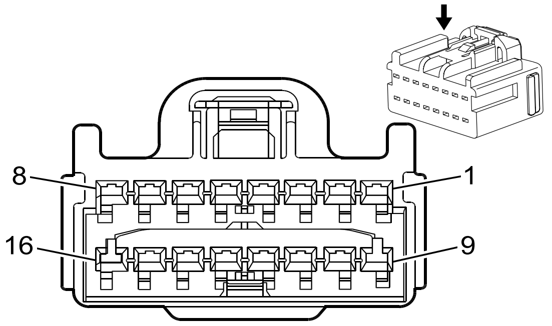
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |
| II | 13575867 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |

### S77 Transfer Case Shift Control Switch (NQF)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | — | — | — | Not Occupied | — | — |
| 2 | 0.35 | VT/BN | 300 | Run Ignition 3 Voltage | II | — |
| 3 | 0.35 | BN | 1560 | Neutral Indicator Control | II | — |
| 4 | 0.35 | WH | 6816 | Indicator Dimming Control | II | — |
| 5 | 0.35 | YE | 6817 | LED Backlight Dimming Control | II | — |
| 6 | 0.5 | BK | 1050 | Ground | I | — |
| 7 | — | — | — | Not Occupied | — | — |
| 8 | 0.35 | L-GN/BK | 1563 | 2 HI Indicator Control | II | — |
| 9 | 0.35 | BN/BK | 1566 | 4 HI Indicator Control | II | — |
| 10 | 0.35 | VT/WH | 1565 | 4 LO Indicator Control | II | — |
| 11 | 0.35 | GY/RD | 6029 | Four Wheel Drive Mode Switch 5V Reference | II | — |
| 12 | 0.35 | D-BU/YE | 1693 | Four Wheel Drive Switch Signal | II | — |

# S78 Turn Signal/Multifunction Switch X1



1592558

## Connector Part Information

Harness Type: Steering Column
OEM Connector: 7283-6453-60
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.5 Kaizen Series (GN)

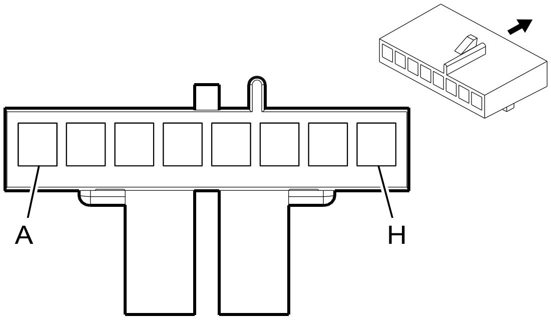
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## S78 Turn Signal/Multifunction Switch X1

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 3 | — | — | — | Not Occupied | — | — |
| 4 | 0.35 | GY | 1715 | Windshield Wiper Switch High Signal | I | — |
| 5 | — | — | — | Not Occupied | — | — |
| 6 | 0.35 | WH/BK | 94 | Windshield Washer Switch Signal | I | — |
| 7 | 0.35 | BK/GY | 6009 | Windshield Wiper Switch Low Reference | I | — |
| 8 | 0.35 | YE/BU | 1714 | Windshield Wiper Switch Low Signal | I | — |
| 9 | — | — | — | Not Occupied | — | — |
| 10 | 0.35 | YE/BN | 307 | Headlamp Switch Flash To Pass Signal | I | — |
| 11 - 12 | — | — | — | Not Occupied | — | — |
| 13 | 0.35 | BK/WH | 1851 | Signal Ground | I | — |
| 14 | 0.35 | WH | 524 | Headlamp Dimmer Switch High Beam Signal | I | — |
| 15 - 16 | — | — | — | Not Occupied | — | — |

# S78 Turn Signal/Multifunction Switch X2



39746

## Connector Part Information

Harness Type: Steering Column
OEM Connector: 15466859
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series (L-GY)

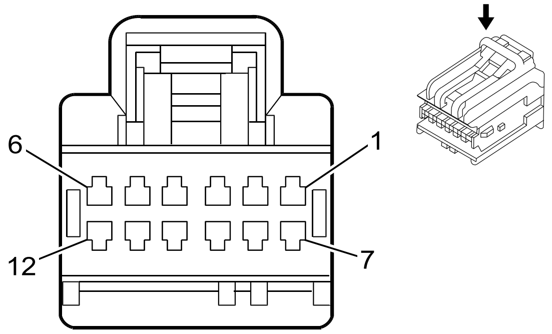
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## S78 Turn Signal/Multifunction Switch X2

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A - B | — | — | — | Not Occupied | — | — |
| C | 0.35 | BK/WH | 1851 | Signal Ground | I | — |
| D | 0.35 | VT/BU | 664 | Hazard Switch Right Turn Signal | I | — |
| E | 0.35 | WH/GN | 663 | Hazard Switch Left Turn Signal | I | — |
| F | 0.35 | BK/WH | 1851 | Signal Ground | I | — |
| G | 0.35 | GN/WH | 111 | Hazard Switch Signal | I | — |
| H | — | — | — | Not Occupied | — | — |

# S79D Window Switch - Driver (A31)



1664569

## Connector Part Information

Harness Type: Driver Door Trim
OEM Connector: 13950639
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 0.64 Series, Sealed (BK)

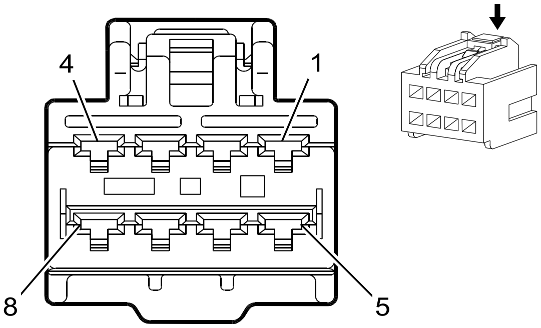
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## S79D Window Switch - Driver (A31)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 1150 | Ground | I | — |
| 2 | 0.35 | L-GN/VT | 7628 | Power Window Motor Left Front Express Control | I | — |
| 3 | 0.35 | GY | 1136 | Power Window Master Switch Left Front Down Signal | I | — |
| 4 | 0.5 | RD/VT | 1940 | Battery Positive Voltage | I | — |
| 5 | 0.5 | L-GN/YE | 6134 | Local Interconnect Network Serial Data Bus 3 | I | — |
| 6 | 0.35 | L-GN/WH | 1300 | Power Window Master Switch Left Front Up Signal | I | — |
| 7 | 0.35 | WH/VT | 3270 | Driver Door Lock Motor Status Signal | I | — |
| 8 | 0.35 | D-BU/VT | 1124 | Door Lock Key Switch Unlock Signal | I | — |
| 9 | — | — | — | Not Occupied | — | — |
| 10 | 0.35 | YE/BN | 3265 | Child Security Lock Switch Signal | I | — |
| 11 | 0.35 | WH | 6816 | Indicator Dimming Control | I | — |
| 12 | 0.35 | GY | 5697 | Child Lockout Indicator Control | I | — |

# S79LR Window Switch - Left Rear (Crew Cab)



1653389

## Connector Part Information

Harness Type: Left Rear Door
OEM Connector: 15491286
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series (BK)

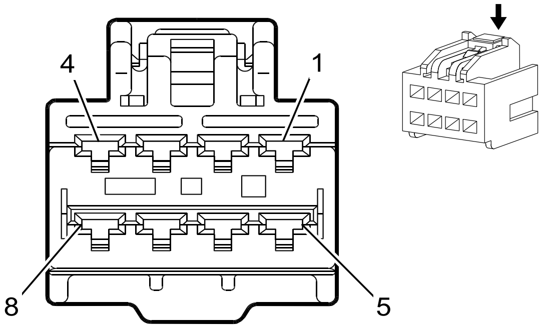
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## S79LR Window Switch - Left Rear (Crew Cab)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | L-GN/GY | 6135 | Local Interconnect Network Serial Data Bus 4 | I | — |
| 2 | 0.35 | GY/WH | 747 | Left Rear Door Ajar Switch Signal | I | — |
| 3 | 0.5 | BK | 1150 | Ground | I | — |
| 4 | — | — | — | Not Occupied | — | — |
| 5 | 2.5 | BK | 1150 | Ground | I | — |
| 6 | 2.5 | D-BU/VT | 668 | Power Window Motor Left Rear Up Control | I | — |
| 7 | 2.5 | YE/D-BU | 669 | Power Window Motor Left Rear Down Control | I | — |
| 8 | 2.5 | RD/D-BU | 1842 | Battery Positive Voltage | I | — |

## S79P Window Switch - Passenger (A31)



1653389

### Connector Part Information

Harness Type: Passenger Door Trim
OEM Connector: 15491286
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series (BK)

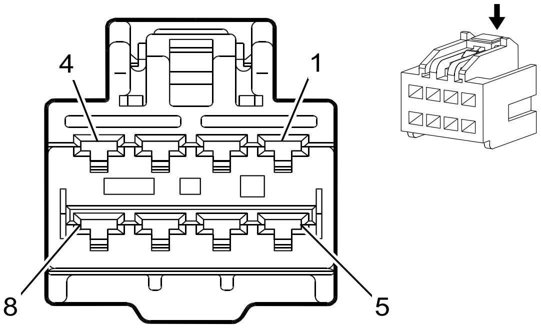
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### S79P Window Switch - Passenger (A31)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | BK | 1250 | Ground | I | — |
| 2 | 2.5 | L-GN/GY | 3387 | Power Window Motor Passenger Up Control | I | — |
| 3 | 2.5 | YE/D-BU | 3388 | Power Window Motor Passenger Down Control | I | — |
| 4 | 2.5 | RD/WH | 1340 | Battery Positive Voltage | I | — |
| 5 | 0.5 | L-GN/YE | 6134 | Local Interconnect Network Serial Data Bus 3 | I | — |
| 6 - 7 | — | — | — | Not Occupied | — | — |
| 8 | 0.35 | GY | 746 | Right Front Door Ajar Switch Signal | I | — |

# S79RR Window Switch - Right Rear (Crew Cab)



1653389

## Connector Part Information

Harness Type: Right Rear Door
OEM Connector: 15491286
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series (BK)

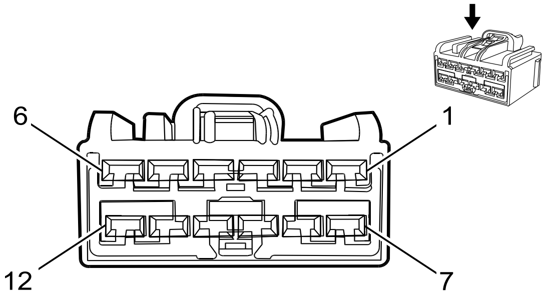
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## S79RR Window Switch - Right Rear (Crew Cab)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | L-GN/GY | 6135 | Local Interconnect Network Serial Data Bus 4 | I | — |
| 2 | 0.35 | GY/WH | 748 | Right Rear Door Ajar Switch Signal | I | — |
| 3 - 4 | — | — | — | Not Occupied | — | — |
| 5 | 2.5 | BK | 1250 | Ground | I | — |
| 6 | 2.5 | D-BU/GY | 670 | Power Window Motor Right Rear Up Control | I | — |
| 7 | 2.5 | L-GN/BK | 671 | Power Window Motor Right Rear Down Control | I | — |
| 8 | 2.5 | RD/WH | 1340 | Battery Positive Voltage | I | — |

# T1 Accessory DC/AC Power Inverter Module (KI4)



2231648

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10846814
Service Connector: 13580444
Description: 12-Way F 2.8 Kaizen Series (L-GY)

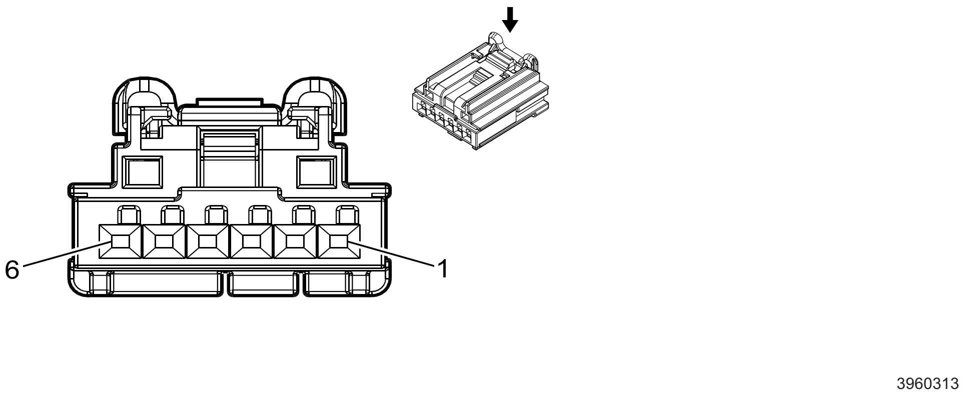
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575839 | J-35616-35 (VT) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| II | 19300649 | J-35616-4A (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| III | 19301752 | J-35616-4A (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| IV | 19368264 | J-35616-35 (VT) | J-38125-11A | 7116-4112-02 | Yazaki 9 | C | D |

## T1 Accessory DC/AC Power Inverter Module (KI4)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | — | — | — | Not Occupied | — | — |
| 2 | 1.5 | BK | 5683 | 120 V AC Phase A | III | — |
| 3 - 5 | — | — | — | Not Occupied | — | — |
| 6 | 2.5 | RD/GY | 4140 | Battery Positive Voltage | IV | — |
| 7 | 1.5 | RD | 5684 | 120 V AC Phase B | III | — |
| 8 - 9 | — | — | — | Not Occupied | — | — |
| 10 | 0.5 | Bare | 514 | Low Reference | I | — |
| 11 | 2.5 | BK | 1050 | Ground | III | — |
| 12 | 0.35 | D-BU/BN | 6807 | DC To AC Inverter Control | II | — |

# T22 Mobile Device Wireless Charger Module (K4C)



### Connector Part Information

Harness Type: Wireless Charger
OEM Connector: 13920633
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Generation Y Series (BK)

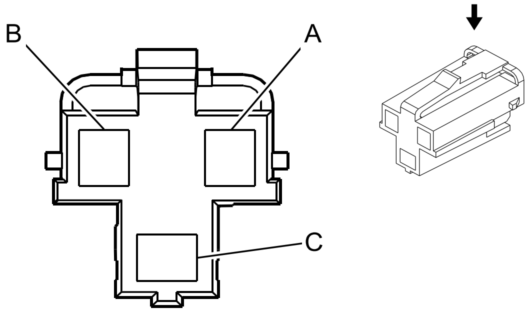
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## T22 Mobile Device Wireless Charger Module (K4C)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT/YE | 43 | Accessory Ignition Voltage | I | — |
| 2 | 0.75 | BK | 1050 | Ground | I | — |
| 3 | 0.35 | L-GN | 4512 | Wireless Charging System Charge Indicator Control | I | — |
| 4 - 6 | — | — | — | Not Occupied | — | — |

# X80D Accessory Power Receptacle - Center Console Compartment (AE7/AZ3)



362748

## Connector Part Information

Harness Type: Center Seat
OEM Connector: 12176836
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 280 Metri-Pack Series (GY)

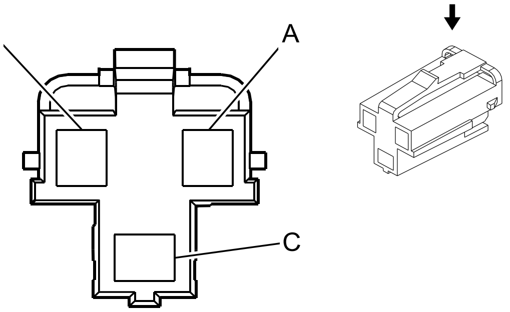
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X80D Accessory Power Receptacle - Center Console Compartment (AE7/AZ3)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 1.5 | VT/YE | 243 | Accessory Ignition Voltage | I | — |
| B | — | — | — | Not Occupied | — | — |
| C | 1.5 | BK | 1250 | Ground | I | — |

# X80D Accessory Power Receptacle - Center Console Compartment (D07)



362748

## Connector Part Information

Harness Type: Floor Console
OEM Connector: 12176836
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 280 Metri-Pack Series (GY)

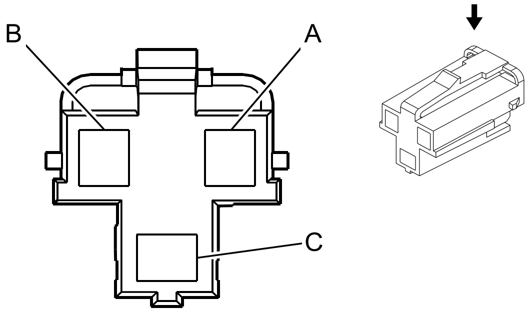
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X80D Accessory Power Receptacle - Center Console Compartment (D07)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 1.5 | VT/YE | 143 | Accessory Ignition Voltage | I | — |
| B | — | — | — | Not Occupied | — | — |
| C | 1.5 | BK | 1050 | Ground | I | — |

# X80E Accessory Power Receptacle - Center Seat (AZ3)



362748

## Connector Part Information

Harness Type: Center Seat
OEM Connector: 12176836
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 280 Metri-Pack Series (GY)

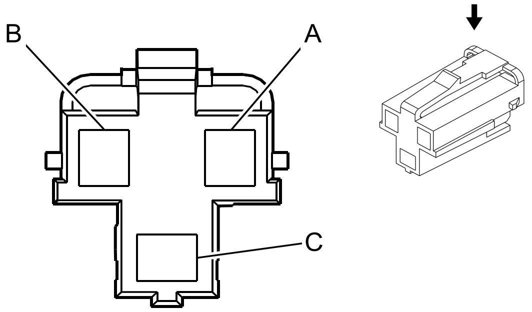
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X80E Accessory Power Receptacle - Center Seat (AZ3)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 1.5 | VT/YE | 143 | Accessory Ignition Voltage | I | — |
| B | — | — | — | Not Occupied | — | — |
| C | 1.5 | BK | 1250 | Ground | I | — |

# X80G Accessory Power Receptacle - Instrument Panel (-D07)



362748

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12176836
Service Connector: 19257374
Description: 3-Way F 280 Metri-Pack Series (GY)

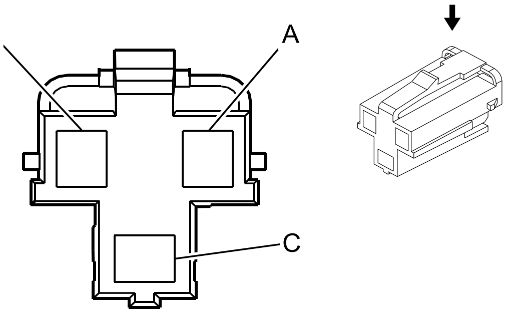
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X80G Accessory Power Receptacle - Instrument Panel (-D07)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 1.5 | RD/BN | 4240 | Battery Positive Voltage | I | — |
| B | — | — | — | Not Occupied | — | — |
| C | 1.5 | BK | 1050 | Ground | I | — |

# X80J Accessory Power Receptacle - Instrument Panel 1 (D07)



362748

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12176836
Service Connector: 19257374
Description: 3-Way F 280 Metri-Pack Series (GY)

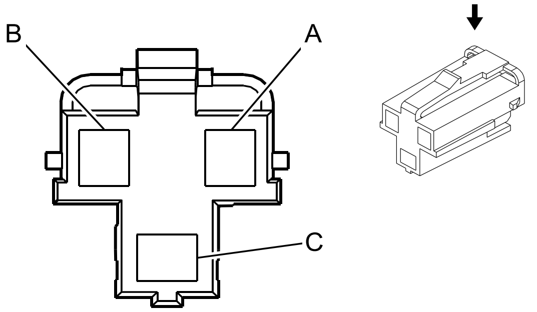
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X80J Accessory Power Receptacle - Instrument Panel 1 (D07)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 1.5 | RD/WH | 1040 | Battery Positive Voltage | I | — |
| B | — | — | — | Not Occupied | — | — |
| C | 1.5 | BK | 1050 | Ground | I | — |

# X80K Accessory Power Receptacle - Instrument Panel 2 (D07)



362748

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12176836
Service Connector: 19257374
Description: 3-Way F 280 Metri-Pack Series (GY)

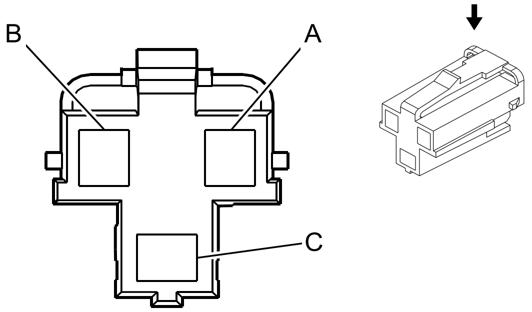
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### X80K Accessory Power Receptacle - Instrument Panel 2 (D07)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 1.5 | RD/BN | 4240 | Battery Positive Voltage | I | — |
| B | — | — | — | Not Occupied | — | — |
| C | 1.5 | BK | 1050 | Ground | I | — |

## X80L Accessory Power Receptacle - Center Console Rear (D07)



362748

### Connector Part Information

Harness Type: Floor Console
OEM Connector: 12176836
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 280 Metri-Pack Series (GY)

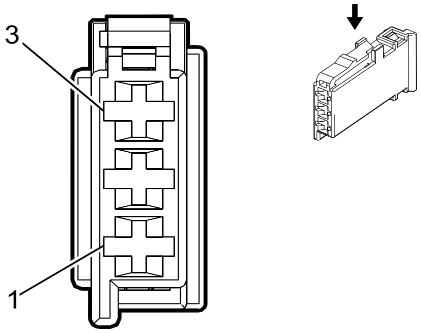
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### X80L Accessory Power Receptacle - Center Console Rear (D07)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 1.5 | VT/YE | 243 | Accessory Ignition Voltage | I | — |
| B | — | — | — | Not Occupied | — | — |
| C | 1.5 | BK | 1050 | Ground | I | — |

# X81 Accessory Power Receptacle - 110V AC X1 (KI4+D07)



2039656

### Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10865339
Service Connector: 93186706
Description: 3-Way F 1.6 Micro-Timer Series (BK)

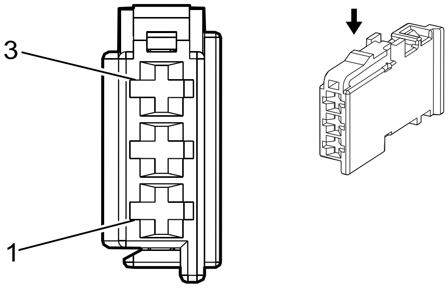
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X81 Accessory Power Receptacle - 110V AC X1 (KI4+D07)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT/BN | 300 | Run Ignition 3 Voltage | I | — |
| 2 | — | — | — | Not Occupied | — | — |
| 3 | 1.5 | BK | 5683 | 120 V AC Phase A | I | — |

# X81 Accessory Power Receptacle - 110V AC X2 (KI4+D07)



2236412

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13648774
Service Connector: 19367740
Description: 3-Way F 1.6 Timer Series, Sealed (GY)

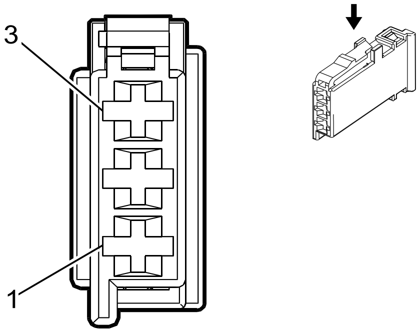
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X81 Accessory Power Receptacle - 110V AC X2 (KI4+D07)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | D-BU/BN | 6807 | DC To AC Inverter Control | I | — |
| 2 | — | — | — | Not Occupied | — | — |
| 3 | 1.5 | RD | 5684 | 120 V AC Phase B | I | — |

# X81 Accessory Power Receptacle - 110V AC X1 (KI4-D07)



## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10865339
Service Connector: 93186706
Description: 3-Way F 1.6 Micro-Timer Series (BK)

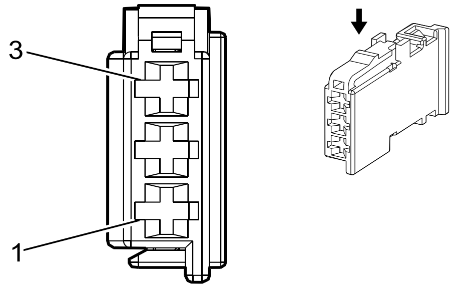
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X81 Accessory Power Receptacle - 110V AC X1 (KI4-D07)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT/BN | 300 | Run Ignition 3 Voltage | I | — |
| 2 | — | — | — | Not Occupied | — | — |
| 3 | 1.5 | BK | 5683 | 120 V AC Phase A | I | — |

## X81 Accessory Power Receptacle - 110V AC X2 (KI4-D07)



### Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13648774
Service Connector: 19367740
Description: 3-Way F 1.6 Timer Series, Sealed (GY)

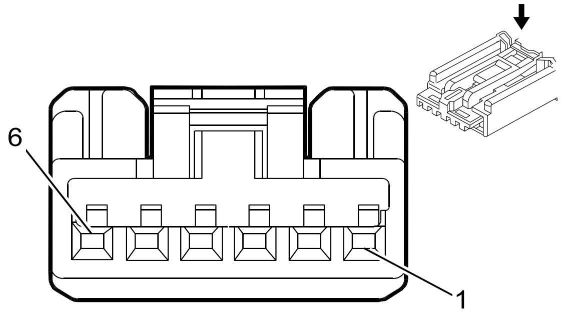
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### X81 Accessory Power Receptacle - 110V AC X2 (KI4-D07)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | D-BU/BN | 6807 | DC To AC Inverter Control | I | — |
| 2 | — | — | — | Not Occupied | — | — |
| 3 | 1.5 | RD | 5684 | 120 V AC Phase B | I | — |

# X83 Auxiliary Audio Input X1 (D07)



1862240

## Connector Part Information

Harness Type: Floor Console
OEM Connector: 13595476
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Kaizen Series (BK)

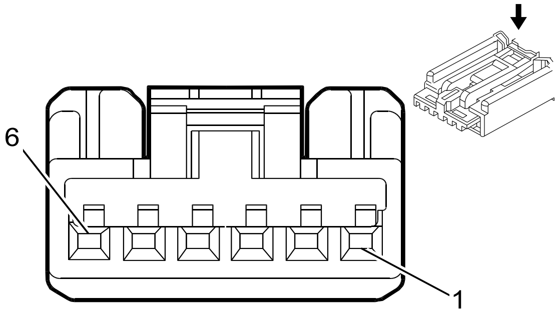
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X83 Auxiliary Audio Input X1 (D07)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY | 5839 | Left Auxiliary Audio Signal 2 | I | — |
| 2 | 0.35 | L-GN | 5841 | Right Auxiliary Audio Signal 2 | I | — |
| 3 | 0.35 | VT | 5843 | Auxiliary Audio Common Signal | I | — |
| 4 | 0.75 | BK | 2550 | Ground | I | — |
| 5 | 0.35 | D-BU | 2060 | Auxiliary Detection Signal | I | — |
| 6 | 0.75 | RD/VT | 340 | Battery Positive Voltage | I | — |

## X83 Auxiliary Audio Input X1 (-D07)



1862240

### Connector Part Information

Harness Type: Center Seat
OEM Connector: AIT2PB-06-1AK
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Kaizen Series (BK)

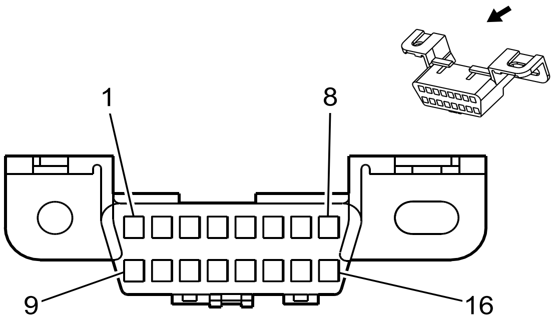
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### X83 Auxiliary Audio Input X1 (-D07)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY | 5839 | Left Auxiliary Audio Signal 2 | I | — |
| 2 | 0.35 | L-GN | 5841 | Right Auxiliary Audio Signal 2 | I | — |
| 3 | 0.35 | VT | 5843 | Auxiliary Audio Common Signal | I | — |
| 4 | 0.35 | BK | 2550 | Ground | I | — |
| 5 | 0.35 | L-BU | 2060 | Auxiliary Detection Signal | I | — |
| 6 | 0.75 | RD/VT | 340 | Battery Positive Voltage | I | — |

## X84 Data Link Connector



68793

### Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12110250
Service Connector: 12110250
Description: 16-Way F 150 Metri-Pack Series (BK)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13580059 | J-35616-14 (GN) | J-38125-12A | 12129484 | Delphi 19 | E | C |

### X84 Data Link Connector

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | L-GN | 5060 | Low Speed GMLAN Serial Data | I | — |
| 2 - 3 | — | — | — | Not Occupied | — | — |
| 4 | 0.5 | BK | 1050 | Ground | I | — |
| 5 | 0.5 | BK/WH | 1851 | Signal Ground | I | — |
| 6 | 0.5 | D-BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | — |
| 7 - 11 | — | — | — | Not Occupied | — | — |
| 12 | 0.5 | D-BU/YE | 6105 | High Speed GMLAN Serial Data (+) 2 | I | — |
| 13 | 0.5 | WH | 6106 | High Speed GMLAN Serial Data (-) 2 | I | — |
| 14 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | — |
| 15 | — | — | — | Not Occupied | — | — |
| 16 | 0.35 | RD/D-BU | 3240 | Battery Positive Voltage | I | — |

# X85 Steering Wheel Air Bag Coil X1

—

## Connector Part Information

Harness Type: Steering Column
OEM Connector: AIT2PB-10-1-AK
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F

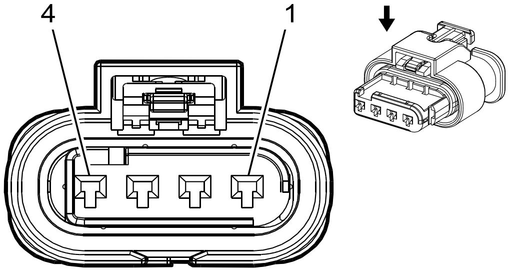
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X85 Steering Wheel Air Bag Coil X1

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | RD/YE | 3040 | Battery Positive Voltage | I | — |
| 2 | 0.5 | GN/BK | 3894 | Local Interconnect Network Serial Data Bus 12 | I | — |
| 4 | 0.35 | GY/GN | 5737 | Adaptive Cruise Control Gap Up/Down Switch Signal | I | — |
| 5 | 0.35 | BN | 6136 | Control | I | — |
| 6 | 0.35 | WH/RD | 1444 | 12V Reference | I | — |
| 8 | 0.35 | BN/GN | 1884 | Cruise Control Set/Coast/Resume/Accelerate Switch Signal | I | — |
| 9 | 0.35 | BK | 1050 | Ground | I | — |
| 10 | 0.35 | GN/WH | 3287 | Horn Switch Signal | I | — |

# X85 Steering Wheel Air Bag Coil X3



2684560

## Connector Part Information

Harness Type: Body
OEM Connector: 13854531
Service Connector: 13586137
Description: 4-Way F 1.2 Series, Sealed (YE)

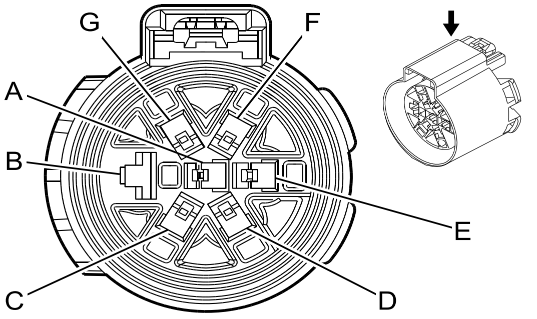
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X85 Steering Wheel Air Bag Coil X3

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | OG/VT | 3021 | Steering Wheel Module Stage 1 High Control | I | — |
| 2 | 0.35 | BN/OG | 3020 | Steering Wheel Module Stage 1 Low Control | I | — |
| 3 - 4 | — | — | — | Not Occupied | — | — |

# X88 Trailer Connector (UY7)



2056936

## Connector Part Information

Harness Type: Chassis Rear Left
OEM Connector: 4088983C1
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 280, 630 Metri-Pack Series, Sealed (BK)

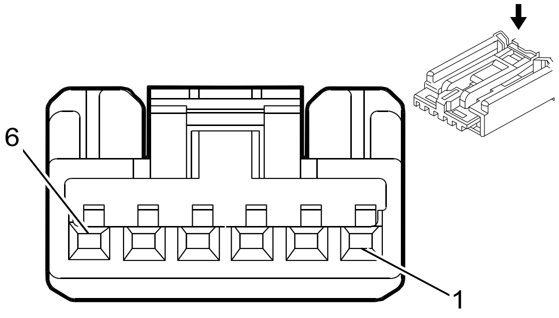
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X88 Trailer Connector (UY7)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 2.5 | WH/GN | 1624 | Trailer Backup Lamp Control | I | — |
| B | 5 | BK | 22 | Trailer Ground | I | — |
| C | 2.5 | BU | 47 | Trailer Auxiliary Control | I | — |
| D | 2.5 | GN/BN | 319 | Right Rear Trailer Stop/Turn Lamp Control | I | — |
| E | 2.5 | RD/VT | 1242 | Battery Positive Voltage | I | — |
| F | 2.5 | GY/BN | 2109 | Trailer Park Lamp Control | I | — |
| G | 2.5 | YE/BU | 318 | Left Rear Trailer Stop/Turn Lamp Control | I | — |

# X92 USB Receptacle X1 (D07)



1862240

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13595476
Service Connector: 19367517
Description: 6-Way F 0.64 Kaizen Series (BK)

## Terminal Part Information

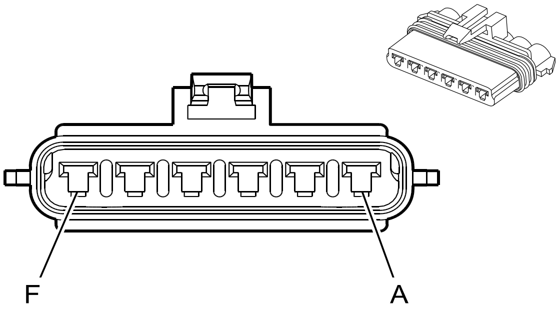
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X92 USB Receptacle X1 (D07)

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 3 | — | — | — | Not Occupied | — | — |
| 4 | 0.35 | BK | 2550 | Ground | I | — |
| 5 | — | — | — | Not Occupied | — | — |
| 6 | 0.75 | RD/VT | 340 | Battery Positive Voltage | I | — |

# Splice Pack Connector End Views

## JX100 Splice Pack



535933

### Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 3551896C1
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Series, Sealed (BK)

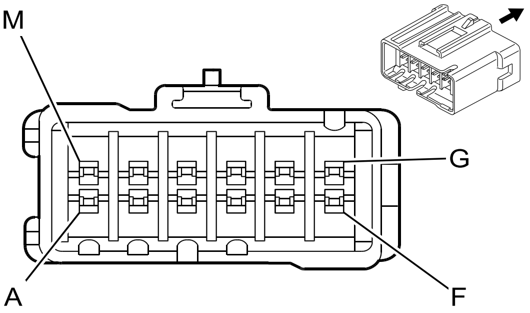
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### JX100 Splice Pack

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 2 | BK | 10 | Headlamp Switch Signal | I | — |
| B | 1.5 | BK | 150 | Ground | I | — |
| C | 1 | BK | 139 | Run/Crank Ignition 1 Voltage | I | — |
| D | 1 | BK | 603 | A/C Low Pressure Switch Signal | I | — |
| E - F | — | — | — | Not Occupied | — | — |

# JX200 Splice Pack



831366

### Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 15305291

Service Connector: 13576417

Description: 12-Way F 280 Metri-Pack Series (BK)

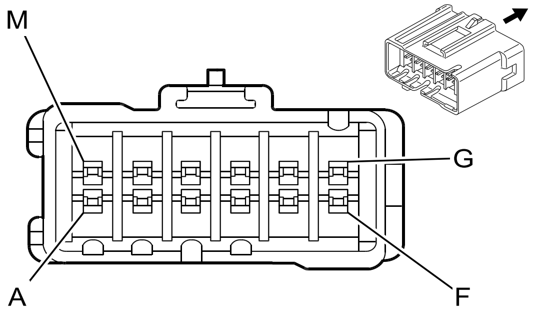
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575721 | J-35616-4A (PU) | J-38125-553 | 12110844 | Delphi 4 | E | 4 |
| II | 13575721 | J-35616-4A (PU) | J-38125-553 | 12110844 | Delphi 4 | E | A |

### JX200 Splice Pack

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.5 | L-GN | 5060 | Low Speed GMLAN Serial Data | II | — |
| B - D | — | — | — | Not Occupied | — | — |
| E | 0.35 | L-GN | 5060 | Low Speed GMLAN Serial Data | I | — |
| F - H | — | — | — | Not Occupied | — | — |
| J | 0.5 | L-GN | 5060 | Low Speed GMLAN Serial Data | II | — |
| K | 0.35 | L-GN | 5060 | Low Speed GMLAN Serial Data | I | — |
| L | — | — | — | Not Occupied | — | — |
| M | 0.5 | L-GN | 5060 | Low Speed GMLAN Serial Data | II | — |

# JX300 Splice Pack



831366

## Connector Part Information

Harness Type: Body
OEM Connector: 15305291
Service Connector: 13576417
Description: 12-Way F 280 Metri-Pack Series (BK)

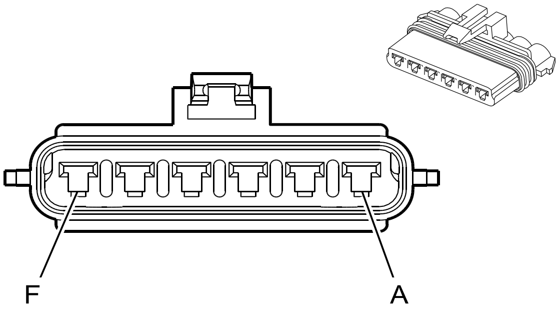
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575721 | J-35616-4A (PU) | J-38125-553 | 12110844 | Delphi 4 | E | A |

## JX300 Splice Pack

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.5 | L-GN | 5060 | Low Speed GMLAN Serial Data | I | — |
| B - H | — | — | — | Not Occupied | — | — |
| J | 0.5 | L-GN | 5060 | Low Speed GMLAN Serial Data | I | — |
| K - L | — | — | — | Not Occupied | — | — |
| M | 0.5 | L-GN | 5060 | Low Speed GMLAN Serial Data | I | — |

## JX301 Splice Pack



535933

### Connector Part Information

Harness Type: Chassis
OEM Connector: 3551896C1
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Series, Sealed (BK)

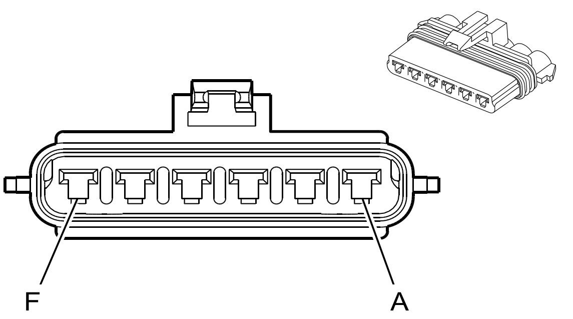
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### JX301 Splice Pack

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 3 | BK | 11 | Headlamp High Beam Control | I | — |
| B | 1 | BK | 1750 | Ground | I | — |
| C | 1.5 | BK | 2150 | Ground | I | — |
| D | 1.5 | BK | 2150 | Ground | I | — |
| E | 3 | BK | 2150 | Ground | I | — |
| F | 1.5 | BK | 2150 | Ground | I | — |

# JX302 Splice Pack



535933

## Connector Part Information

Harness Type: Chassis
OEM Connector: 3551896C1
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Series, Sealed (BK)

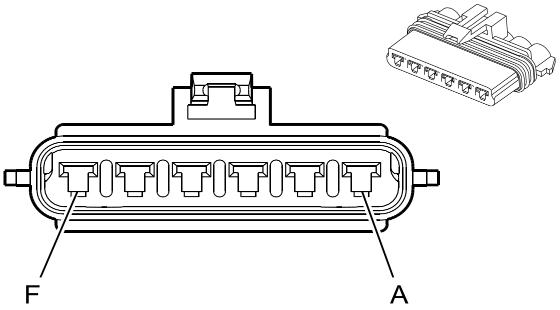
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## JX302 Splice Pack

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 3 | BK | 11 | Headlamp High Beam Control | I | — |
| B | 3 | BK | 1750 | Ground | I | — |
| C | 1.5 | BK | 2150 | Ground | I | — |
| D | 3 | BK | 2150 | Ground | I | — |
| E | 3 | WH | 90 | Right Mirror Motor Left Control | I | — |
| F | — | — | — | Not Occupied | — | — |

# JX402 Splice Pack



535933

## Connector Part Information

Harness Type: Chassis Rear Right
OEM Connector: 3551896C1
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Series, Sealed (BK)

## Terminal Part Information

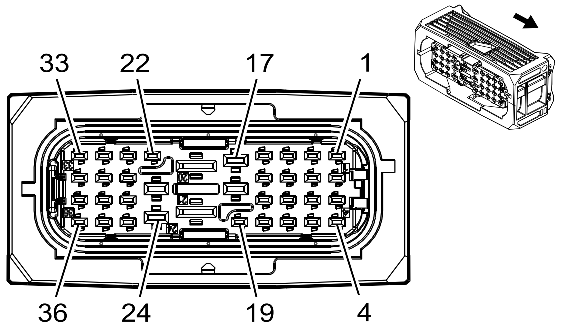
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## JX402 Splice Pack

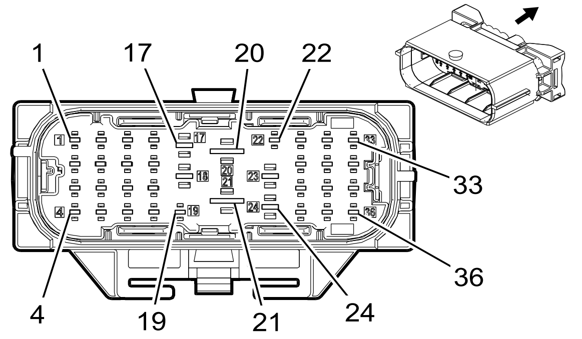
| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 3 | BK | 10 | Headlamp Switch Signal | I | — |
| B | 3 | BK | 10 | Headlamp Switch Signal | I | — |
| C | 1 | BK | 1430 | Exterior Courtesy Lamp Control | I | — |
| D | 1 | BK | 1624 | Trailer Backup Lamp Control | I | — |
| E | 0.75 | BK | 2550 | Ground | I | — |
| F | 1.5 | BK | 10 | Headlamp Switch Signal | I | — |

# Inline Harness Connector End Views

## X101 Engine Chassis Harness to Engine Harness



4204560



3960400

### Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 13929980
Service Connector: 19333092
Description: 36-Way F 1.5, 2.8 CTS, 6.3 MCP Series (BK)

### Connector Part Information

Harness Type: Engine
OEM Connector: 13930004
Service Connector: 19330685
Description: 36-Way M 1.5, 2.8, 5.8 Series, Sealed (BK)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19301776 | J-35616-14 (GN) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |
| II | 19329757 | J-35616-14 (GN) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |
| III | 19333088 | J-35616-35 (VT) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| IV | 19368624 | J-35616-35 (VT) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| V | 13575380 | J-35616-3 (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| VI | 13581368 | J-35616-5 (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| VII | 19331731 | J-35616-3 (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |

### X101 Engine Chassis Harness to Engine Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.5 | D-BU/BN | 4498 | II | — | High Speed GMLAN Serial Data (+) 7 | 1 | 0.5 | BU/BN | 4498 | VII | — |
| 2 | 0.5 | WH | 4499 | II | — | High Speed GMLAN Serial Data (-) 7 | 2 | 0.5 | WH | 4499 | VII | — |
| 3 | 0.5 | D-BU | 2500 | I | — | High Speed GMLAN Serial Data (+) 1 | 3 | 0.5 | BU | 2500 | VII | — |
| 4 | 0.5 | WH | 2501 | I | — | High Speed GMLAN Serial Data (-) 1 | 4 | 0.5 | WH | 2501 | VII | — |

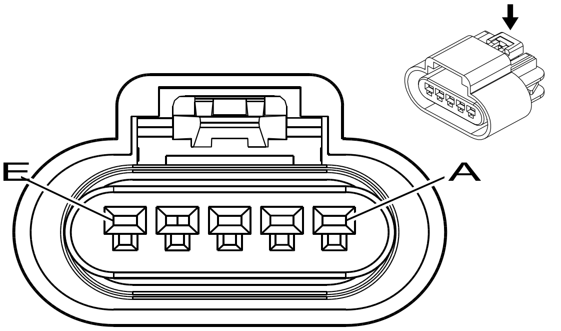
## X101 Engine Chassis Harness to Engine Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 0.5 | BK/BN | 6782 | II | — | Exhaust Gas Temperature Sensor 1 Low Reference | 5 | 0.5 | BK/BN | 6782 | VII | — |
| 6 | 0.5 | D-BU/WH | 5277 | II | — | Exhaust Gas Temperature Sensor 1 | 6 | 0.5 | BU/WH | 5277 | VII | — |
| 7 | 0.5 | BK/D-BU | 6783 | II | — | Exhaust Gas Temperature Sensor 2 Low Reference | 7 | 0.5 | BK/BU | 6783 | VII | — |
| 8 | 0.5 | D-BU/L-GN | 5377 | II | — | Exhaust Gas Temperature Sensor 2 | 8 | 0.5 | BU/GN | 5377 | VII | — |
| 9 | 0.5 | BK/D-BU | 6274 | II | — | Exhaust Gas Recirculation Temperature Sensor Low Reference | 9 | 0.5 | BK/BU | 6274 | VII | — |
| 10 | 0.5 | WH/BN | 3237 | II | — | Exhaust Gas Recirculation Temperature Sensor Signal | 10 | 0.5 | WH/BN | 3237 | VII | — |
| 11 | 0.5 | BK/YE | 6275 | II | — | Exhaust Gas Recirculation Temperature Sensor 2 Low Reference | 11 | 0.5 | BK/YE | 6275 | VII | — |
| 12 | 0.5 | YE/L-GN | 3236 | II | — | Exhaust Gas Recirculation Temperature Sensor 2 Signal | 12 | 0.5 | YE/GN | 3236 | VII | — |
| 13 | 0.5 | YE/BK | 3682 | II | — | Charge Air Cooler Inlet Temperature Sensor Low Reference | 13 | 0.5 | YE/BK | 3682 | VII | — |
| 14 | 0.5 | L-GN | 3683 | II | — | Charge Air Cooler Inlet Temperature Sensor Signal | 14 | 0.5 | GN | 3683 | VII | — |
| 15 | 0.5 | BN/BK | 2929 | II | — | Fuel Metering Valve Low Control | 15 | 0.5 | BN/BK | 2929 | VII | — |
| 16 | 0.5 | YE | 2928 | II | — | Fuel Metering Valve High Control | 16 | 0.5 | YE | 2928 | VII | — |
| 17 | 0.5 | VT/YE | 5985 | IV | — | Accessory Wakeup Serial Data | 17 | 0.5 | VT/YE | 443 | VI | — |
| 18 | 0.5 | VT/BK | 2139 | IV | — | Run/Crank Ignition 1 Voltage | 18 | 0.5 | VT/BK | 2139 | VI | — |
| 19 - 21 | — | — | — | — | — | Not Occupied | 19 - 21 | — | — | — | — | — |

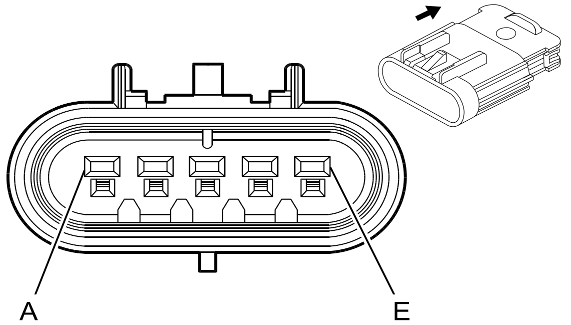
## X101 Engine Chassis Harness to Engine Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 22 | 0.5 | VT/D-BU | 3674 | I | — | NOx Sensor 1 Control | 22 | 0.5 | VT/BU | 3674 | V | — |
| 23 | 0.5 | GY | 23 | III | — | Generator Field Duty Cycle Signal | 23 | 0.5 | GY | 23 | VI | — |
| 24 | 0.75 | BN | 25 | III | — | Charge Indicator Control | 24 | 0.5 | BN | 25 | VI | — |
| 25 | 0.5 | BN/RD | 7445 | II | — | Fuel Line Pressure Sensor 5V Reference | 25 | 0.5 | BN/RD | 7445 | VII | — |
| 26 | 0.5 | BK/YE | 7447 | II | — | Fuel Line Pressure Sensor Low Reference | 26 | 0.5 | BK/YE | 7447 | VII | — |
| 27 | 0.5 | D-BU/WH | 7446 | II | — | Fuel Line Pressure Sensor Signal | 27 | 0.5 | BU/WH | 7446 | VII | — |
| 28 | — | — | — | — | — | Crankshaft Position Sensor Replicated Signal | 28 | 0.5 | VT/BU | 6091 | VII | — |
| 29 | — | — | — | — | — | Not Occupied | 29 | — | — | — | — | — |
| 30 | 0.5 | D-BU/L-GN | 7071 | II | — | Heater Fuel Control | 30 | 0.5 | BU/GN | 7071 | VII | — |
| 31 | — | — | — | — | — | Hydrocarbon Injector Low Control | 31 | 0.5 | VT/BN | 2927 | VII | — |
| 32 | — | — | — | — | — | Hydrocarbon Injector High Control | 32 | 0.5 | BN/BU | 2926 | VII | — |
| 33 | 0.5 | D-BU/BN | 4498 | II | — | High Speed GMLAN Serial Data (+) 7 | 33 | 0.5 | BU/BN | 4498 | VII | — |
| 34 | 0.5 | WH | 4499 | II | — | High Speed GMLAN Serial Data (-) 7 | 34 | 0.5 | WH | 4499 | VII | — |
| 35 | 0.5 | D-BU | 2500 | I | — | High Speed GMLAN Serial Data (+) 1 | 35 | 0.5 | BU | 2500 | VII | — |
| 36 | 0.5 | WH | 2501 | I | — | High Speed GMLAN Serial Data (-) 1 | 36 | 0.5 | WH | 2501 | VII | — |

# X102 Engine Chassis Harness to Engine Cooling Fan Harness



647974



1334521

### Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 13519051
Service Connector: 13585858
Description: 5-Way F 150 GT Series, Sealed (BK)

### Connector Part Information

Harness Type: Engine Cooling Fan
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way M (BK)

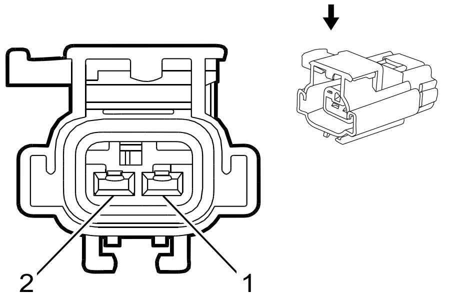
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X102 Engine Chassis Harness to Engine Cooling Fan Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 0.75 | BK | 550 | I | — | Ground | A | — | GN | 550 | II | — |
| B | 0.5 | WH | 2368 | I | — | Cooling Fan Control Signal | B | — | RD | 2368 | II | — |
| C | 0.5 | BK/BN | 6141 | I | — | Cooling Fan Speed Low Reference | C | — | BK | 6141 | II | — |
| D | 0.5 | BU/VT | 2364 | I | — | Cooling Fan Speed Signal | D | — | WH | 2364 | II | — |
| E | 0.5 | GY/RD | 2365 | I | — | Cooling Fan Speed 5V Reference | E | — | OG | 2365 | II | — |

# X103 Forward Lamp Harness to Horn Jumper Harness



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2323609

## Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 3626435C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 Series, Sealed (BK)

## Connector Part Information

Harness Type: Horn Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M

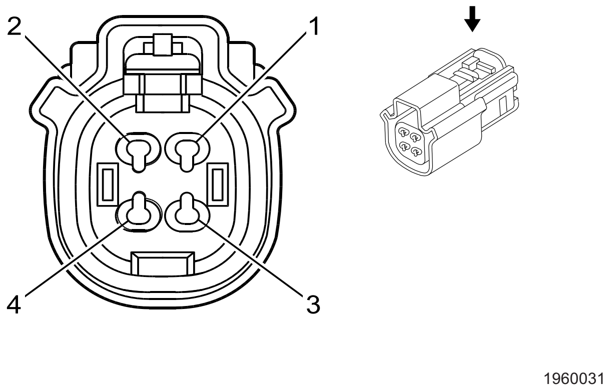
## Terminal Part Information

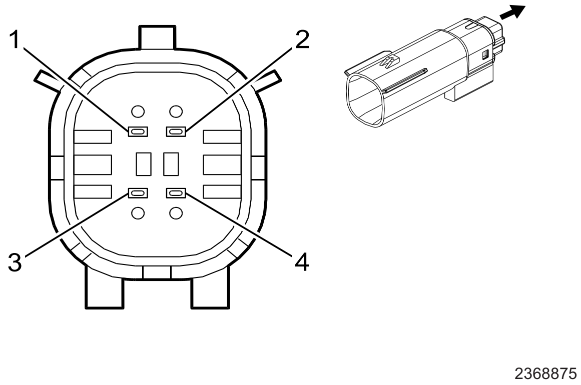
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X103 Forward Lamp Harness to Horn Jumper Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | BN/GY | 29 | I | — | Horn Control | 1 | 1 | BN/GY | 29 | II | — |
| 2 | 1 | BK | 85 | I | — | Cruise Control Engaged Indicator | 2 | 1 | BK | 85 | II | — |

# X105 Engine Chassis Harness to Engine Chassis Harness





## Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 33346391
Service Connector: 19366645
Description: 4-Way F 150 MX Series, Sealed (BK)

## Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 33344515
Service Connector: 19330396
Description: 4-Way M 150 MX Series, Sealed (BK)

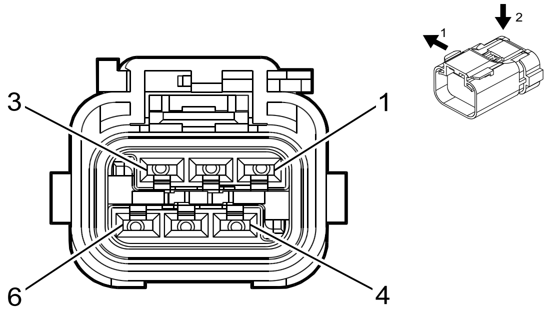
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X105 Engine Chassis Harness to Engine Chassis Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.5 | YE/BK | 625 | I | — | Starter Enable Relay Control | 1 | 0.5 | YE/BK | 625 | II | — |
| 2 | 0.75 | BN | 25 | I | — | Charge Indicator Control | 2 | 0.75 | BN | 25 | II | — |
| 3 | 0.5 | YE/BK | 625 | I | — | Starter Enable Relay Control | 3 | 0.5 | YE/BK | 625 | II | — |
| 4 | 0.75 | BN | 25 | I | — | Charge Indicator Control | 4 | 0.75 | BN | 25 | II | — |

# X107 Left Snow Plow Tee Harness to Left Snow Plow Headlight Harness (UNL)



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4997615

### Connector Part Information

Harness Type: Left Snow Plow Tee
OEM Connector: 3612305C1
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 2.8 APEX Series, Sealed (BK)

### Connector Part Information

Harness Type: Left Snow Plow Headlight
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M

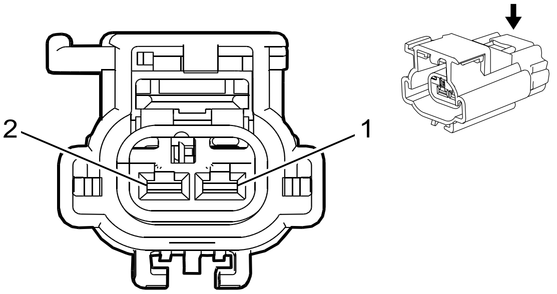
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

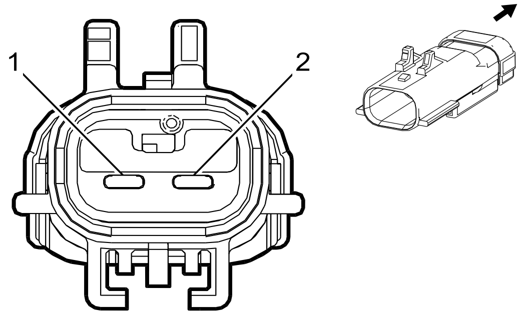
## X107 Left Snow Plow Tee Harness to Left Snow Plow Headlight Harness (UNL)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 250 | I | — | Ground | 1 | — | — | — | II | — |
| 2 | 1.5 | YE | 712 | I | — | Left Headlamp Low Beam Control | 2 | — | — | — | II | — |
| 3 | 1.5 | WH | 711 | I | — | Left Headlamp High Beam Control | 3 | — | — | — | II | — |
| 4 | 1.5 | GY/BU | 7538 | I | — | Left Front DRL Control | 4 | — | — | — | II | — |
| 5 | 1.5 | VT/GY | 709 | I | — | Left Park Lamp Control | 5 | — | — | — | II | — |
| 6 | 1.5 | BU/WH | 1314 | I | — | Left Front Turn Signal Lamp Control | 6 | — | — | — | II | — |

# X108 Forward Lamp Harness to Left Fog Lamp Jumper Harness (T3U)



2474690



2474698

## Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 6105358C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed (BK)

## Connector Part Information

Harness Type: Left Fog Lamp Interconnect
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M

## Terminal Part Information

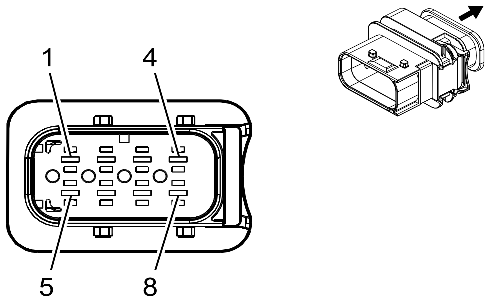
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X108 Forward Lamp Harness to Left Fog Lamp Jumper Harness (T3U)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BN/VT | 2234 | I | — | Front Fog Lamp Control | 1 | 1.5 | BN/VT | 2234 | II | — |
| 2 | 1.5 | BK | 150 | I | — | Ground | 2 | 1.5 | BK | 150 | II | — |

## X109 Left Headlight Jumper Harness to Forward Lamp Harness

—



4975769

### Connector Part Information

Harness Type: Left Headlight Interconnect
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

### Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 4100563C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 2.8 Series, Sealed (BK)

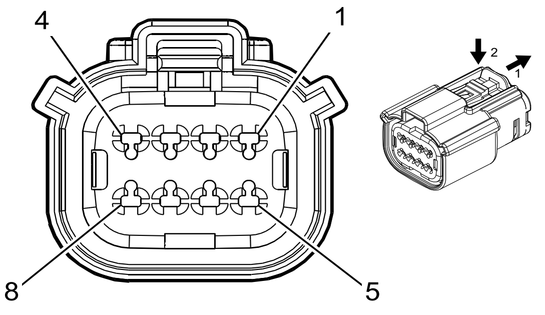
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

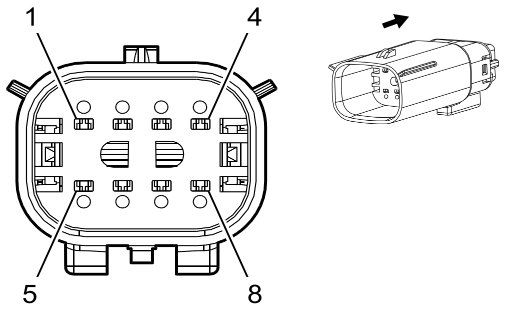
### X109 Left Headlight Jumper Harness to Forward Lamp Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | YE | 712 | I | — | Left Headlamp Low Beam Control | 1 | 1 | YE | 712 | II | — |
| 2 | 1 | VT/GY | 709 | I | — | Left Park Lamp Control | 2 | 1 | VT/GY | 709 | II | — |
| 3 | 1 | BU/WH | 1314 | I | — | Left Front Turn Signal Lamp Control | 3 | 1 | BU/WH | 1314 | II | — |
| 4 | 1 | BN/GN | 109 | I | — | Hood Ajar Switch Signal | 4 | 1 | BN/GN | 109 | II | — |
| 5 | 1 | WH | 711 | I | — | Left Headlamp High Beam Control | 5 | 1 | WH | 711 | II | — |
| 6 | 1 | GY/BU | 7538 | I | — | Left Front DRL Control | 6 | 1 | GY/BU | 7538 | II | — |
| 7 | 1 | YE | 5530 | I | — | Hood Open Switch Signal | 7 | 1 | YE | 5530 | II | — |
| 8 | 1.5 | BK | 250 | I | — | Ground | 8 | 1.5 | BK | 250 | II | — |

# X110 Left Snow Plow Tee Harness to Left Headlight Harness (UNL)



4846407



2667653

## Connector Part Information

Harness Type: Left Snow Plow Tee
OEM Connector: 3709924C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 MX Series, Sealed (BK)

## Connector Part Information

Harness Type: Left Headlight
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M

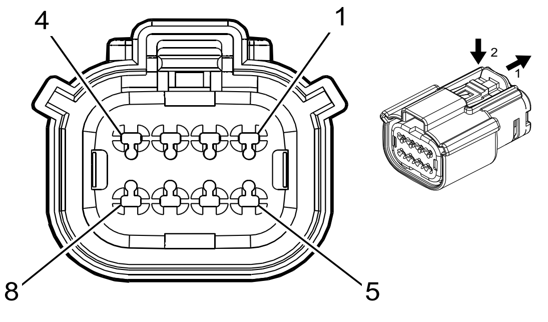
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

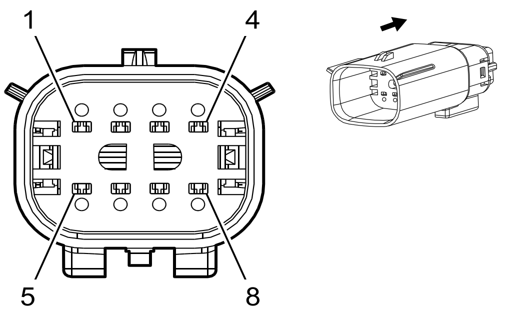
## X110 Left Snow Plow Tee Harness to Left Headlight Harness (UNL)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 250 | I | — | Ground | 1 | 1.5 | BK | 250 | II | — |
| 2 | 0.75 | YE | 712 | I | — | Left Headlamp Low Beam Control | 2 | 0.75 | YE | 712 | II | — |
| 3 | 0.75 | WH | 711 | I | — | Left Headlamp High Beam Control | 3 | 0.75 | WH | 711 | II | — |
| 4 | 0.75 | GY/BU | 7539 | I | — | Right Front DRL Control | 4 | 0.75 | GY/BU | 7539 | II | — |
| 5 | 0.75 | VT/GY | 709 | I | — | Left Park Lamp Control | 5 | 0.75 | VT/GY | 709 | II | — |
| 6 | 0.75 | BU/WH | 1314 | I | — | Left Front Turn Signal Lamp Control | 6 | 0.75 | BU/WH | 1314 | II | — |
| 7 - 8 | — | — | — | — | — | Not Occupied | 7 - 8 | — | — | — | — | — |

## X110 Left Headlight Jumper Harness to Left Headlight Harness (-UNL)



4846407



2667653

### Connector Part Information

- Harness Type: Left Headlight Jumper
- OEM Connector: 3709924C1
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 150 MX Series, Sealed (BK)

### Connector Part Information

- Harness Type: Left Headlight
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way M

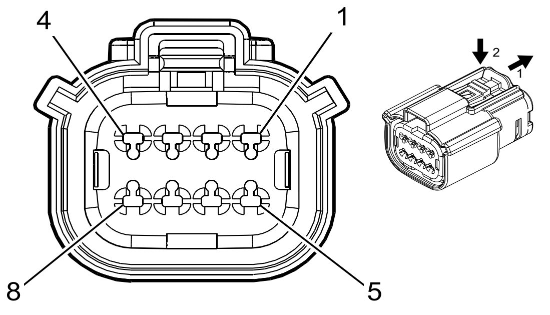
### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

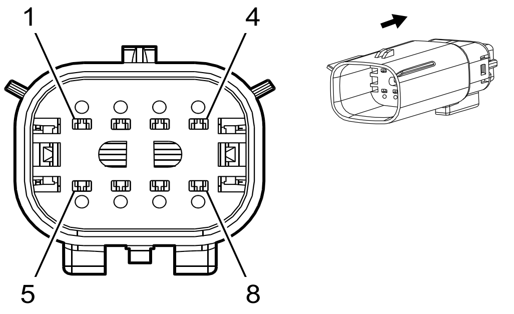
### X110 Left Headlight Jumper Harness to Left Headlight Harness (-UNL)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 250 | I | — | Ground | 1 | 0.75 | BK | 250 | II | — |
| 2 | 0.75 | YE | 712 | I | — | Left Headlamp Low Beam Control | 2 | 0.75 | YE | 712 | II | — |
| 3 | 0.75 | WH | 711 | I | — | Left Headlamp High Beam Control | 3 | 0.75 | WH | 711 | II | — |
| 4 | 0.75 | GY/BU | 7538 | I | — | Left Front DRL Control | 4 | 0.75 | GY/BU | 7538 | II | — |
| 5 | 0.75 | VT/GY | 709 | I | — | Left Park Lamp Control | 5 | 0.75 | VT/GY | 709 | II | — |
| 6 | 0.75 | BU/WH | 1314 | I | — | Left Front Turn Signal Lamp Control | 6 | 0.75 | BU/WH | 1314 | II | — |
| 7 - 8 | — | — | — | — | — | Not Occupied | 7 - 8 | — | — | — | — | — |

# X111 Left Headlight Jumper Harness to Left Snow Plow Tee Harness (UNL)



4846407



2667653

## Connector Part Information

Harness Type: Left Headlight Jumper
OEM Connector: 3709924C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 MX Series, Sealed (BK)

## Connector Part Information

Harness Type: Left Snow Plow Tee
OEM Connector: 3709925C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 150 MX Series, Sealed (BK)

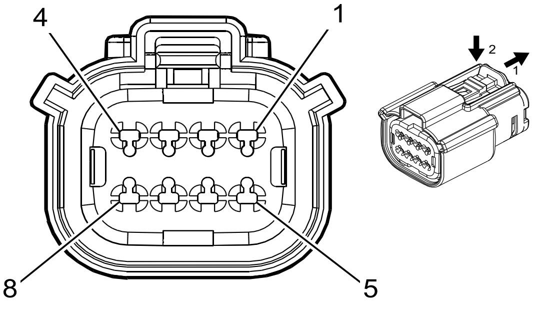
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X111 Left Headlight Jumper Harness to Left Snow Plow Tee Harness (UNL)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | YE | 712 | I | — | Left Headlamp Low Beam Control | 1 | 1.5 | YE | 712 | II | — |
| 2 | 1.5 | VT/GY | 709 | I | — | Left Park Lamp Control | 2 | 1.5 | VT/GY | 709 | II | — |
| 3 | 1.5 | BU/WH | 1314 | I | — | Left Front Turn Signal Lamp Control | 3 | 1.5 | BU/WH | 1314 | II | — |
| 4 | — | — | — | — | — | Not Occupied | 4 | — | — | — | — | — |
| 5 | 1.5 | WH | 711 | I | — | Left Headlamp High Beam Control | 5 | 1.5 | WH | 711 | II | — |
| 6 | 1.5 | GY/BU | 7538 | I | — | Left Front DRL Control | 6 | 1.5 | GY/BU | 7538 | II | — |
| 7 | — | — | — | — | — | Not Occupied | 7 | — | — | — | — | — |
| 8 | 1.5 | BK | 250 | I | — | Ground | 8 | 1.5 | BK | 250 | II | — |

# X112 Engine Harness to Engine Jumper Harness



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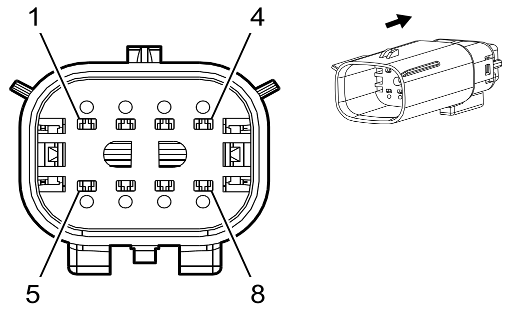


2667653

## Connector Part Information

Harness Type: Engine
OEM Connector: 13520069
Service Connector: 19366859
Description: 8-Way F 150 MX Series, Sealed (BK)

## Connector Part Information

Harness Type: Engine Left
OEM Connector: 13520577
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 150 MX Series, Sealed (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

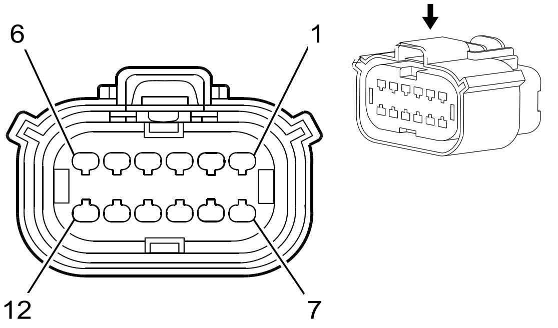
## X112 Engine Harness to Engine Jumper Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/BU | 6270 | I | — | Crankshaft 60X Sensor 5V Reference | 1 | 0.5 | VT/BU | 6270 | II | — |
| 2 | 0.5 | BK/VT | 6272 | I | — | Crankshaft 60X Sensor Low Reference | 2 | 0.5 | BK/VT | 6272 | II | — |
| 3 | 0.5 | GN | 6271 | I | — | Crankshaft 60X Sensor Signal | 3 | 0.5 | GN | 6271 | II | — |
| 4 | 0.5 | BN/RD | 2917 | I | — | Fuel Rail Pressure Sensor 5V Reference | 4 | 0.5 | BN/RD | 2917 | II | — |
| 5 | 0.5 | BK/GN | 2919 | I | — | Fuel Rail Pressure Sensor Low Reference | 5 | 0.5 | BK/GN | 2919 | II | — |
| 6 | 0.5 | BU/WH | 2918 | I | — | Fuel Rail Pressure Sensor Signal | 6 | 0.5 | BU/WH | 2918 | II | — |

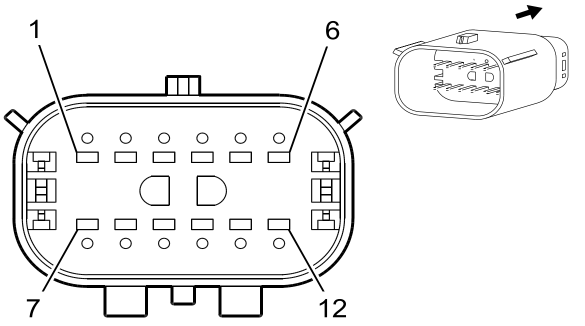
## X112 Engine Harness to Engine Jumper Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 0.5 | BN/ YE | 2161 | I | — | Fuel Rail Pressure Sensor 2 Signal | 7 | 0.5 | BN/ YE | 2161 | II | — |
| 8 | — | — | — | — | — | Not Occupied | 8 | — | — | — | — | — |

# X113 Engine Harness to Engine Jumper Harness



1825165



1825167

## Connector Part Information

Harness Type: Engine
OEM Connector: 13503526
Service Connector: 13503528
Description: 12-Way F 1.5 Series, Sealed (BK)

## Connector Part Information

Harness Type: Engine Left
OEM Connector: 13520579
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M 150 MX Series, Sealed (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13578813 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| II | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

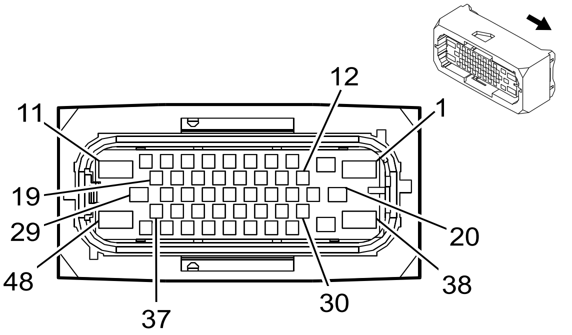
## X113 Engine Harness to Engine Jumper Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/RD | 2705 | I | — | Oil Pressure Sensor 5V Reference | 1 | 0.5 | WH/RD | 2705 | II | — |
| 2 | 0.5 | BK/VT | 2755 | I | — | Oil Pressure Sensor Low Reference | 2 | 0.5 | BK/VT | 2755 | II | — |
| 3 | 0.5 | YE/BN | 331 | I | — | Oil Pressure Sensor Signal | 3 | 0.5 | YE/BN | 331 | II | — |
| 4 | 0.5 | BU | 410 | I | — | Engine Coolant Temperature Sensor Signal | 4 | 0.5 | BU | 410 | II | — |
| 5 | 0.5 | BK/BN | 2761 | I | — | Coolant Temperature Sensor Low Reference | 5 | 0.5 | BK/BN | 2761 | II | — |
| 6 | 0.5 | BK/WH | 251 | I | — | Signal Ground | 6 | 0.5 | BK/WH | 251 | II | — |
| 7 | 0.5 | BN/GN | 1174 | I | — | Oil Level Switch Signal | 7 | 0.5 | BN/GN | 1174 | II | — |
| 8 - 9 | — | — | — | — | — | Not Occupied | 8 - 9 | — | — | — | — | — |

## X113 Engine Harness to Engine Jumper Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 0.5 | YE | 2928 | I | — | Fuel Metering Valve High Control | 10 | 0.5 | YE | 2928 | II | — |
| 11 | 0.5 | BN/BK | 2929 | I | — | Fuel Metering Valve Low Control | 11 | 0.5 | BN/BK | 2929 | II | — |
| 12 | — | — | — | — | — | Not Occupied | 12 | — | — | — | — | — |

# X115 Engine Harness to Body Harness



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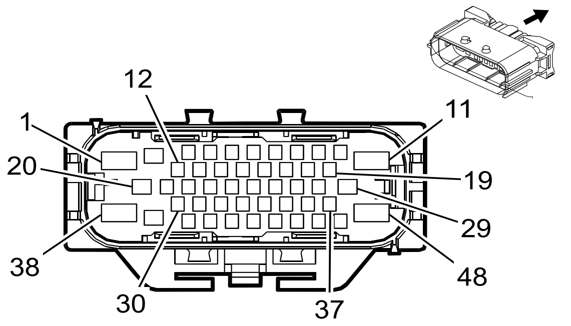


3240125

## Connector Part Information

Harness Type: Engine Chassis

OEM Connector: 15509587

Service Connector: 19119963

Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed (GY)

## Connector Part Information

Harness Type: Body

OEM Connector: 15513437

Service Connector: 13586850

Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed (GY)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13580830 | J-35616-35 (VT) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| II | 13580830 | J-35616-4A (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| III | 19301757 | J-35616-40 (BU) | J-38125-556 | 1241408-1 | Lear 28 | B | G |
| IV | 19301775 | J-35616-40 (BU) | J-38125-556 | 1241408-1 | Lear 28 | C | A |
| V | 19301776 | J-35616-14 (GN) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |
| VI | 19329757 | J-35616-14 (GN) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |
| VII | 13505807 | J-35616-3 (GY) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| VIII | 13575233 | J-35616-3 (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| IX | 13575350 | J-35616-5 (PU) | J-38125-36 | 1-962915-3 | Yazaki 15 | E | 1 |
| X | 13580827 | J-35616-5 (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| XI | 19329756 | J-35616-32 (OR) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| XII | 19352419 | J-35616-3 (GY) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

## X115 Engine Harness to Body Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | — | — | — | — | — | Not Occupied | 1 | — | — | — | — | — |

## X115 Engine Harness to Body Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 0.75 | D-BU/BN | 7573 | II | — | Electric Variable Displacement Supply | 2 | 0.5 | D-BU/BN | 7573 | X | — |
| 3 | 0.5 | BN/WH | 419 | V | — | Check Engine Indicator Control | 3 | 0.35 | BN/WH | 419 | XII | — |
| 4 | 0.5 | WH/D-BU | 6311 | V | — | Cruise/ETC/TCC Brake Signal | 4 | 0.5 | WH/D-BU | 6311 | VII | — |
| 5 | 0.5 | WH | 2501 | V | — | High Speed GMLAN Serial Data (-) 1 | 5 | 0.5 | WH | 2501 | VII | — |
| 6 | 0.5 | D-BU | 2500 | V | — | High Speed GMLAN Serial Data (+) 1 | 6 | 0.5 | D-BU | 2500 | VII | — |
| 7 | 0.5 | WH | 5359 | V | — | Brake Apply Sensor Control | 7 | 0.35 | WH | 5359 | XII | — |
| 8 | 0.5 | BK/BN | 5360 | V | — | Brake Apply Sensor Low Reference | 8 | 0.35 | BK/BN | 5360 | XII | — |
| 9 | 0.5 | D-BU/YE | 5361 | V | — | Brake Apply Sensor Signal | 9 | 0.35 | D-BU/YE | 5361 | XII | — |
| 10 | 0.5 | YE/WH | 1161 | VI | — | Accelerator Pedal Position Signal 1 | 10 | 0.35 | YE/WH | 1161 | VIII | — |
| 11 | 3 | BK | 550 | III | — | Ground | 11 | 4 | BK | 550 | XI | — |
| 12 - 14 | — | — | — | — | — | Not Occupied | 12 - 14 | — | — | — | — | — |
| 15 | 0.75 | YE | 163 | V | — | Folding Top Motor Down Control | 15 | 0.75 | YE | 163 | VII | — |
| 16 | 0.5 | VT/YE | 5985 | V | — | Accessory Wakeup Serial Data | 16 | 0.35 | VT/YE | 5985 | XII | — |
| 17 | 0.5 | WH/D-BU | 5986 | V | — | Serial Data Communication Enable | 17 | 0.5 | WH/D-BU | 5986 | VII | — |
| 18 | 0.5 | WH/RD | 1164 | VI | — | Accelerator Pedal Position 5V Reference 1 | 18 | 0.35 | WH/RD | 1164 | VIII | — |
| 19 | 0.5 | BK/D-BU | 1271 | VI | — | Accelerator Pedal Position Low Reference 1 | 19 | 0.35 | BK/D-BU | 1271 | VIII | — |
| 20 | 0.75 | D-BU/YE | 7574 | II | — | Electric Variable Displacement Control | 20 | 0.5 | D-BU/YE | 7574 | X | — |
| 21 | — | — | — | — | — | Not Occupied | 21 | — | — | — | — | — |
| 22 | 0.5 | D-BU/GY | 7473 | V | — | Incremental Encoder Impulse Signal | 22 | 0.35 | D-BU/GY | 7473 | XII | — |

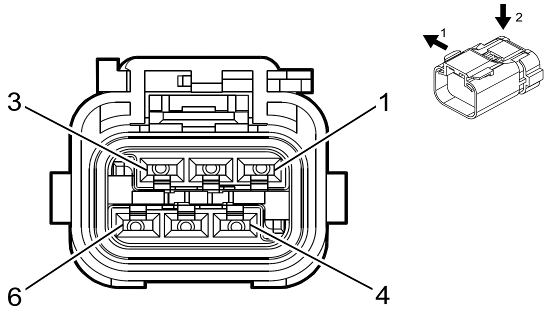
## X115 Engine Harness to Body Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 23 | 0.5 | VT | 7476 | V | — | Incremental Encoder Sensor Low Reference | 23 | 0.35 | VT | 7476 | XII | — |
| 24 | 0.5 | BK/WH | 451 | V | — | Signal Ground | 24 | 0.5 | BK/WH | 451 | VII | — |
| 25 | 0.5 | BN/RD | 1274 | VI | — | Accelerator Pedal Position 5V Reference 2 | 25 | 0.35 | BN/RD | 1274 | VIII | — |
| 26 | 0.5 | L-GN/WH | 1162 | VI | — | Accelerator Pedal Position Signal 2 | 26 | 0.35 | L-GN/WH | 1162 | VIII | — |
| 27 | 0.5 | BK/VT | 1272 | VI | — | Accelerator Pedal Position Low Reference 2 | 27 | 0.35 | BK/VT | 1272 | VIII | — |
| 28 | — | — | — | — | — | Not Occupied | 28 | — | — | — | — | — |
| 29 | 0.5 | VT/D-BU | 3674 | I | — | NOx Sensor 1 Control | 29 | 0.5 | VT/D-BU | 3674 | X | — |
| 30 | 0.5 | WH/L-GN | 7475 | V | — | Incremental Encoder Sensor 8V Reference | 30 | 0.35 | WH/L-GN | 7475 | XII | — |
| 31 | — | — | — | — | — | Incremental Encoder Direction Signal | 31 | 0.35 | YE | 7474 | XII | — |
| 32 | 0.5 | D-BU/BN | 4498 | V | — | High Speed GMLAN Serial Data (+) 7 | 32 | 0.5 | D-BU/BN | 4498 | VII | — |
| 33 | 0.5 | WH | 4499 | V | — | High Speed GMLAN Serial Data (-) 7 | 33 | 0.5 | WH | 4499 | VII | — |
| 34 - 36 | — | — | — | — | — | Not Occupied | 34 - 36 | — | — | — | — | — |
| 37 | 0.75 | RD/D-BU | 4540 | V | — | Battery Positive Voltage | 37 | 0.75 | RD/D-BU | 4540 | VII | — |
| 38 | 1 | YE/VT | 1553 | IV | — | Transfer Case Motor Counter Clockwise Control | 38 | 1 | YE/VT | 1553 | XI | — |
| 39 | 0.75 | RD/VT | 2640 | II | — | Battery Positive Voltage | 39 | 0.75 | RD/VT | 2640 | IX | — |
| 40 | 0.5 | BN/L-GN | 4311 | V | — | Power Take Off Enable In Cab Switch Normally Closed Signal | 40 | 0.35 | BN/L-GN | 4311 | XII | — |
| 41 | 0.5 | L-GN/WH | 488 | V | — | Power Take Off Control Switch | 41 | 0.35 | L-GN/WH | 488 | XII | — |
| 42 | — | — | — | — | — | Not Occupied | 42 | — | — | — | — | — |

## X115 Engine Harness to Body Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 43 | 0.5 | L-GN/ BN | 507 | V | — | Wait To Start Indicator Control | 43 | 0.35 | L-GN/ BN | 507 | XII | — |
| 44 | — | — | — | — | — | Not Occupied | 44 | — | — | — | — | — |
| 45 | 0.5 | D-BU/ GY | 636 | V | — | Outside Ambient Air Temperature Sensor Signal | 45 | 0.35 | D-BU/ GY | 636 | XII | — |
| 46 | 0.5 | BK/D-BU | 61 | V | — | Outside Ambient Temperature Sensor Low Reference | 46 | 0.35 | BK/D-BU | 61 | XII | — |
| 47 | — | — | — | — | — | Not Occupied | 47 | — | — | — | — | — |
| 48 | 1 | OG | 1552 | IV | — | Transfer Case Motor Clockwise Control | 48 | 1 | YE/ GY | 1552 | XI | — |

# X117 Right Snow Plow Tee Harness to Right Snow Plow Headlight Harness (UNL)



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4997615

**Connector Part Information**

Harness Type: Right Snow Plow Tee
OEM Connector: 3612305C1
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 2.8 APEX Series, Sealed (BK)

**Connector Part Information**

Harness Type: Right Snow Plow Headlight
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M

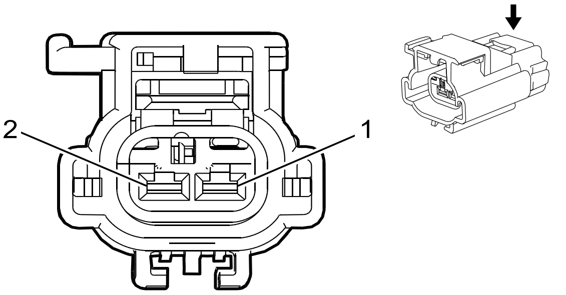
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X117 Right Snow Plow Tee Harness to Right Snow Plow Headlight Harness (UNL)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 250 | I | — | Ground | 1 | 1.5 | BK | 250 | II | — |
| 2 | 1.5 | YE | 712 | I | — | Left Headlamp Low Beam Control | 2 | 1.5 | YE | 712 | II | — |
| 3 | 1.5 | WH | 711 | I | — | Left Headlamp High Beam Control | 3 | 1.5 | WH | 711 | II | — |
| 4 | 1.5 | GY/BU | 7538 | I | — | Left Front DRL Control | 4 | 1.5 | GY/BU | 7538 | II | — |
| 5 | 1.5 | VT/GY | 709 | I | — | Left Park Lamp Control | 5 | 1.5 | VT/GY | 709 | II | — |
| 6 | 1.5 | BU/WH | 1314 | I | — | Left Front Turn Signal Lamp Control | 6 | 1.5 | BU/WH | 1314 | II | — |

# X118 Forward Lamp Harness to Right Fog Lamp Jumper Harness (T3U)



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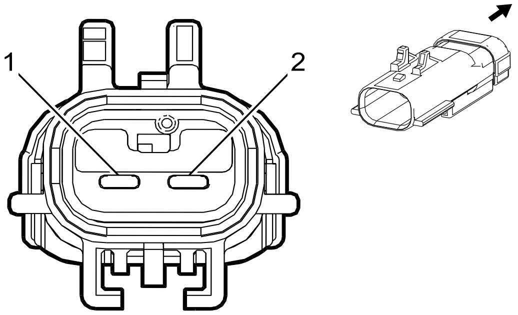


2474698

## Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 6105358C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed (BK)

## Connector Part Information

Harness Type: Right Fog Lamp Interconnect
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M

## Terminal Part Information

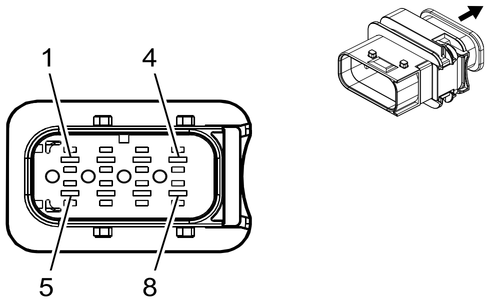
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X118 Forward Lamp Harness to Right Fog Lamp Jumper Harness (T3U)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BN/VT | 2234 | I | — | Front Fog Lamp Control | 1 | 1.5 | BN/VT | 2234 | II | — |
| 2 | 1.5 | BK | 150 | I | — | Ground | 2 | 1.5 | BK | 150 | II | — |

# X119 Right Headlight Jumper Harness to Forward Lamp Harness

—



### Connector Part Information

Harness Type: Right Headlight Interconnect
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

### Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 4100563C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 2.8 Series, Sealed (BK)

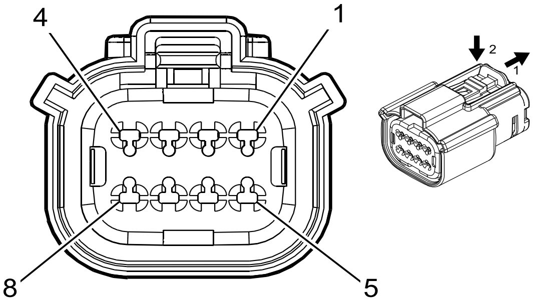
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X119 Right Headlight Jumper Harness to Forward Lamp Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | YE | 312 | I | — | Right Headlamp Low Beam Control | 1 | 1 | YE | 312 | II | — |
| 2 | 1 | GY/BN | 309 | I | — | Right Park Lamp Control | 2 | 1 | GY/BN | 309 | II | — |
| 3 | 1 | GN/VT | 1315 | I | — | Right Front Turn Signal Lamp Control | 3 | 1 | GN/VT | 1315 | II | — |
| 5 | 1 | WH | 311 | I | — | Right Headlamp High Beam Control | 5 | 1 | WH | 311 | II | — |
| 6 | 1 | BU/BN | 7539 | I | — | Right Front DRL Control | 6 | 1 | BU/BN | 7539 | II | — |
| 8 | 1.5 | BK | 250 | I | — | Ground | 8 | 1.5 | BK | 250 | II | — |

# X120 Right Snow Plow Tee Harness to Right Headlight Harness (UNL)



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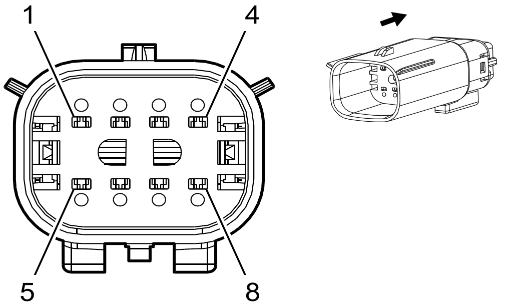


2667653

## Connector Part Information

Harness Type: Right Snow Plow Tee
OEM Connector: 3709924C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 MX Series, Sealed (BK)

## Connector Part Information

Harness Type: Right Headlight
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M

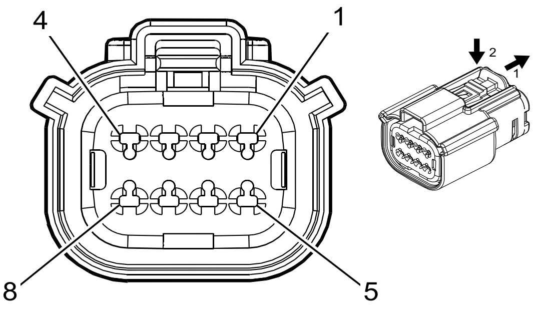
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X120 Right Snow Plow Tee Harness to Right Headlight Harness (UNL)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 250 | I | — | Ground | 1 | 1.5 | BK | 250 | II | — |
| 2 | 0.75 | YE | 712 | I | — | Left Headlamp Low Beam Control | 2 | 0.75 | YE | 712 | II | — |
| 3 | 0.75 | WH | 711 | I | — | Left Headlamp High Beam Control | 3 | 0.75 | WH | 711 | II | — |
| 4 | 0.75 | GY/BU | 7539 | I | — | Right Front DRL Control | 4 | 0.75 | GY/BU | 7539 | II | — |
| 5 | 0.75 | VT/GY | 709 | I | — | Left Park Lamp Control | 5 | 0.75 | VT/GY | 709 | II | — |
| 6 | 0.75 | BU/WH | 1314 | I | — | Left Front Turn Signal Lamp Control | 6 | 0.75 | BU/WH | 1314 | II | — |
| 7 - 8 | — | — | — | — | — | Not Occupied | 7 - 8 | — | — | — | — | — |

# X120 Right Headlight Jumper Harness to Right Headlight Harness (-UNL)



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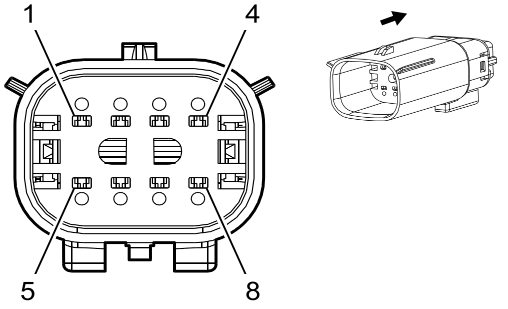


2667653

## Connector Part Information

Harness Type: Right Headlight Jumper
OEM Connector: 3709924C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 MX Series, Sealed (BK)

## Connector Part Information

Harness Type: Right Headlight
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M

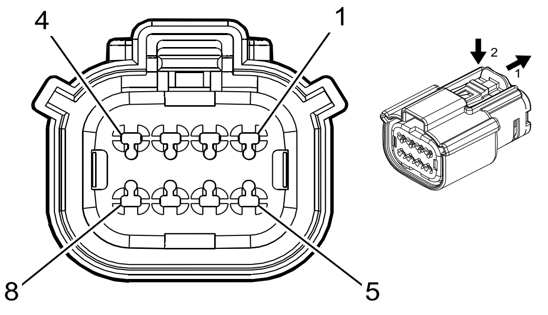
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X120 Right Headlight Jumper Harness to Right Headlight Harness (-UNL)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 250 | I | — | Ground | 1 | 1.5 | BK | 250 | II | — |
| 2 | 0.75 | YE | 712 | I | — | Left Headlamp Low Beam Control | 2 | 0.75 | YE | 712 | II | — |
| 3 | 0.75 | WH | 711 | I | — | Left Headlamp High Beam Control | 3 | 0.75 | WH | 711 | II | — |
| 4 | 0.75 | GY/BU | 7539 | I | — | Right Front DRL Control | 4 | 0.75 | GY/BU | 7539 | II | — |
| 5 | 0.75 | VT/GY | 709 | I | — | Left Park Lamp Control | 5 | 0.75 | VT/GY | 709 | II | — |
| 6 | 0.75 | BU/WH | 1314 | I | — | Left Front Turn Signal Lamp Control | 6 | 0.75 | BU/WH | 1314 | II | — |
| 7 - 8 | — | — | — | — | — | Not Occupied | 7 - 8 | — | — | — | — | — |

# X121 Right Headlight Jumper Harness to Right Snow Plow Tee Harness (UNL)



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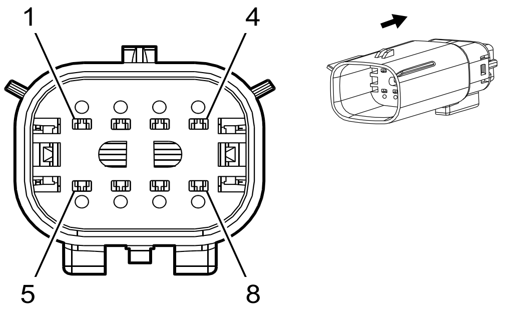


2667653

## Connector Part Information

Harness Type: Right Headlight Jumper
OEM Connector: 3709924C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 MX Series, Sealed (BK)

## Connector Part Information

Harness Type: Right Snow Plow Tee
OEM Connector: 3709925C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 150 MX Series, Sealed (BK)

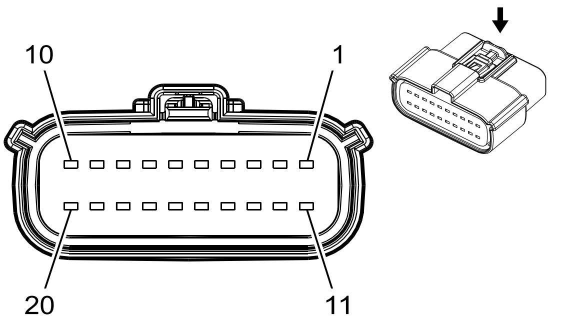
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

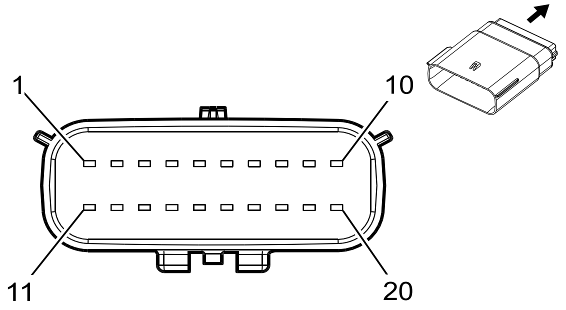
## X121 Right Headlight Jumper Harness to Right Snow Plow Tee Harness (UNL)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | YE | 712 | I | — | Left Headlamp Low Beam Control | 1 | 1.5 | YE | 712 | II | — |
| 2 | 1.5 | VT/GY | 709 | I | — | Left Park Lamp Control | 2 | 1.5 | VT/GY | 709 | II | — |
| 3 | 1.5 | BU/WH | 1314 | I | — | Left Front Turn Signal Lamp Control | 3 | 1.5 | BU/WH | 1314 | II | — |
| 4 | — | — | — | — | — | Not Occupied | 4 | — | — | — | — | — |
| 5 | 1.5 | WH | 711 | I | — | Left Headlamp High Beam Control | 5 | 1.5 | WH | 711 | II | — |
| 6 | 1.5 | GY/BU | 7538 | I | — | Left Front DRL Control | 6 | 1.5 | GY/BU | 7538 | II | — |
| 7 | — | — | — | — | — | Not Occupied | 7 | — | — | — | — | — |
| 8 | 2 | BK | 250 | I | — | Ground | 8 | 2 | BK | 250 | II | — |

# X125 Engine Chassis Harness to Chassis Harness



2871898



2871861

## Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 13650143
Service Connector: 19300557
Description: 20-Way F 1.5 Series, Sealed (BK)

## Connector Part Information

Harness Type: Chassis
OEM Connector: 3990222C1
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way M 1.5 Series, Sealed (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300432 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| II | 19300635 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| III | Not Required | No Tool Required | No Tool Required | Not Available | Not Available | Not Available | Not Available |

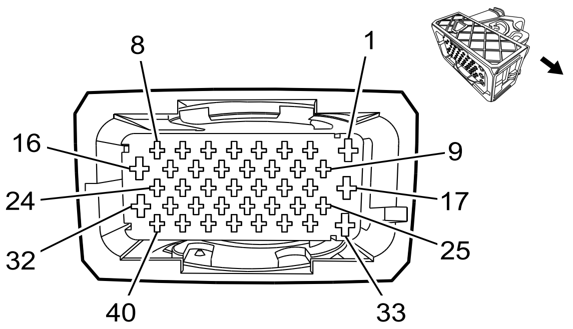
## X125 Engine Chassis Harness to Chassis Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.5 | BK/VT | 3661 | II | — | Exhaust Gas Temperature Sensor 5 Low Reference | 1 | 0.5 | BK/VT | 3661 | III | — |
| 2 | 0.5 | D-BU/GY | 3660 | II | — | Exhaust Gas Temperature Sensor 5 Signal | 2 | 0.5 | BU/GY | 3660 | III | — |
| 3 | 0.5 | BK/GY | 3659 | II | — | Exhaust Gas Temperature Sensor 4 Low Reference | 3 | 0.5 | BK/GY | 3659 | III | — |
| 4 | 0.5 | VT/BN | 3658 | II | — | Exhaust Gas Temperature Sensor 4 Signal | 4 | 0.5 | VT/BN | 3658 | III | — |
| 5 - 6 | — | — | — | — | — | Not Occupied | 5 - 6 | — | — | — | — | — |

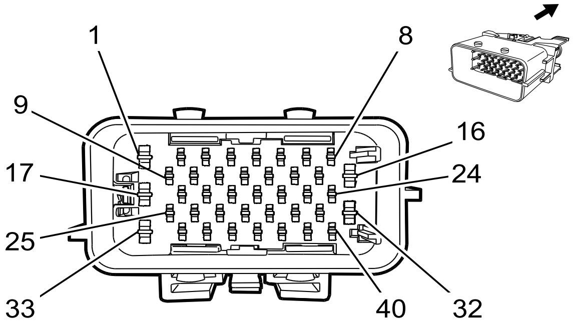
## X125 Engine Chassis Harness to Chassis Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 0.5 | BK/L-GN | 3657 | II | — | Exhaust Gas Temperature Sensor 3 Low Reference | 7 | 0.5 | BK/GN | 3657 | III | — |
| 8 | 0.5 | D-BU/WH | 7446 | II | — | Fuel Line Pressure Sensor Signal | 8 | 0.5 | BU | 7446 | III | — |
| 9 | 0.5 | BK/YE | 7447 | II | — | Fuel Line Pressure Sensor Low Reference | 9 | 0.5 | BK/YE | 7447 | III | — |
| 10 | 1.5 | VT/L-GN | 355 | I | — | Fuel Filter Heater Voltage | 10 | 1.5 | VT/GN | 355 | III | — |
| 11 | 0.5 | GY/L-GN | 5378 | II | — | Exhaust Gas Temperature Sensor 3 | 11 | 0.5 | GY/GN | 5378 | III | — |
| 12 | 1.5 | VT/GY | 539 | I | — | Run/Crank Ignition 1 Voltage | 12 | 1.5 | GY | 120 | III | — |
| 13 - 14 | — | — | — | — | — | Not Occupied | 13 - 14 | — | — | — | — | — |
| 15 | 0.5 | WH/RD | 6054 | II | — | Exhaust Pressure Sensor 5V Reference 1 | 15 | 0.5 | WH/RD | 6054 | III | — |
| 16 | 0.5 | BK/YE | 6055 | II | — | Exhaust Pressure Sensor Low Reference 1 | 16 | 0.5 | BK/YE | 6055 | III | — |
| 17 | 0.5 | D-BU | 6053 | II | — | Exhaust Pressure Sensor Signal 1 | 17 | 0.5 | BU | 6053 | III | — |
| 18 | 0.5 | BN/RD | 7445 | II | — | Fuel Line Pressure Sensor 5V Reference | 18 | 0.5 | BN/RD | 7445 | III | — |
| 19 | 1.5 | VT/D-BU | 3674 | I | — | NOx Sensor 1 Control | 19 | 1.5 | VT/BU | 3674 | III | — |
| 20 | — | — | — | — | — | Not Occupied | 20 | — | — | — | — | — |

# X138 Chassis Harness to Body Harness



2220548



2339640

## Connector Part Information

Harness Type: Chassis
OEM Connector: 4086709C1
Service Connector: Service by Harness - See Part Catalog
Description: 40-Way F 1.5, 2.8 Series, Sealed (BK)

## Connector Part Information

Harness Type: Body
OEM Connector: 13603208
Service Connector: 13576551
Description: 40-Way M 1.5 DSQ, 2.8 ATS Series, Sealed (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Available | Not Available | Not Available | Not Available |
| II | 13505807 | J-35616-3 (GY) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| III | 13578881 | J-35616-5 (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| IV | 13580827 | J-35616-5 (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| V | 19352419 | J-35616-3 (GY) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

## X138 Chassis Harness to Body Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.5 | GN/BK | 7633 | I | — | Integrated Trailer Brake Controller User Gain Signal | 1 | 0.5 | L-GN/BK | 7633 | IV | — |
| 2 | 0.75 | WH/BU | 5986 | I | — | Serial Data Communication Enable | 2 | 0.5 | WH/D-BU | 5986 | II | — |
| 3 | 0.5 | YE | 7635 | I | — | Integrated Trailer Brake Controller Manual Apply Signal | 3 | 0.5 | YE | 7635 | II | — |
| 4 | 0.5 | BU/RD | 7632 | I | — | Integrated Trailer Brake Controller Switch 5V Reference | 4 | 0.5 | D-BU/RD | 7632 | II | — |

## X138 Chassis Harness to Body Harness (cont'd)

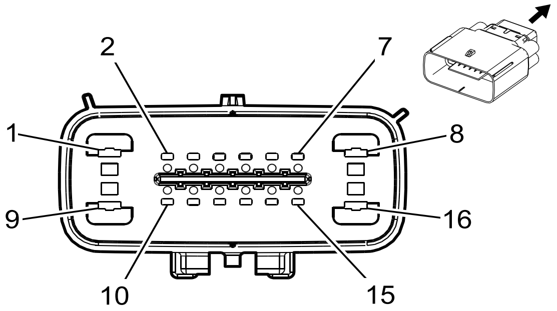
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 0.5 | BN | 7634 | I | — | Integrated Trailer Brake Controller Redundant Manual Apply Signal | 5 | 0.5 | BN | 7634 | II | — |
| 6 | 0.5 | BK/BN | 7631 | I | — | Integrated Trailer Brake Controller Switch Low Reference | 6 | 0.5 | BK/BN | 7631 | II | — |
| 7 | — | — | — | — | — | Not Occupied | 7 | — | — | — | — | — |
| 8 | 0.75 | VT/GY | 1054 | I | — | Stop Lamp Control | 8 | 0.75 | VT/GY | 1054 | II | — |
| 9 | 0.5 | BU/BN | 4498 | I | — | High Speed GMLAN Serial Data (+) 7 | 9 | 0.5 | D-BU/BN | 4498 | II | — |
| 10 | 0.5 | WH | 4499 | I | — | High Speed GMLAN Serial Data (-) 7 | 10 | 0.5 | WH | 4499 | II | — |
| 11 | 1 | YE/BU | 18 | I | — | Left Rear Stop/Turn Lamp Control | 11 | 0.75 | YE/D-BU | 18 | II | — |
| 12 | 1 | BN/GN | 19 | I | — | Right Rear Stop/Turn Lamp Control | 12 | 0.75 | BN/L-GN | 19 | II | — |
| 13 | — | — | — | — | — | Not Occupied | 13 | — | — | — | — | — |
| 14 | 0.75 | WH/BU | 6311 | I | — | Cruise/ETC/TCC Brake Signal | 14 | 0.35 | WH/D-BU | 6311 | V | — |
| 15 - 17 | — | — | — | — | — | Not Occupied | 15 - 17 | — | — | — | — | — |
| 18 | 0.5 | BU | 2500 | I | — | High Speed GMLAN Serial Data (+) 1 | 18 | 0.5 | D-BU | 2500 | II | — |
| 19 | 0.5 | WH | 2501 | I | — | High Speed GMLAN Serial Data (-) 1 | 19 | 0.5 | WH | 2501 | II | — |
| 20 | 0.5 | VT/YE | 5985 | I | — | Accessory Wakeup Serial Data | 20 | 0.5 | VT/YE | 5985 | II | — |
| 21 - 22 | — | — | — | — | — | Not Occupied | 21 - 22 | — | — | — | — | — |
| 23 | 1.5 | GY/BN | 309 | I | — | Right Park Lamp Control | 23 | 0.5 | GY/BN | 309 | II | — |
| 24 | 1 | GN/VT | 619 | I | — | Right Rear Turn Signal Lamp Control | 24 | 0.75 | L-GN/VT | 619 | II | — |
| 25 - 28 | — | — | — | — | — | Not Occupied | 25 - 28 | — | — | — | — | — |
| 29 | 0.5 | BK | 2550 | I | — | Ground | 29 | 0.75 | BK | 2550 | II | — |
| 30 | 0.5 | WH | 6974 | I | — | Camera Low Reference | 30 | 0.5 | BK | 6974 | II | — |

## X138 Chassis Harness to Body Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 31 | — | — | — | — | — | Not Occupied | 31 | — | — | — | — | — |
| 32 | 1.5 | BU | 47 | I | — | Trailer Auxiliary Control | 32 | 2.5 | D-BU | 47 | III | — |
| 33 - 35 | — | — | — | — | — | Not Occupied | 33 - 35 | — | — | — | — | — |
| 36 | 0.75 | GN/VT | 1430 | I | — | Exterior Courtesy Lamp Control | 36 | 0.75 | WH/VT | 1430 | II | — |
| 37 | 0.75 | GY/YE | 6972 | I | — | Camera Signal 2 + | 37 | 0.35 | GY/YE | 6972 | V | — |
| 38 | 0.75 | WH/BU | 6973 | I | — | Camera Signal 2 | 38 | 0.35 | WH/D-BU | 6973 | V | — |
| 39 | — | — | — | — | — | Not Occupied | 39 | — | — | — | — | — |
| 40 | — | — | — | — | — | Vehicle Speed Signal | 40 | 0.5 | L-GN/GY | 817 | II | — |

# X143 Reductant Control Module Jumper Harness to Engine Chassis Harness

—



4209017

## Connector Part Information

Harness Type: Reductant Control Module Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F

## Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 33182033
Service Connector: 19354088
Description: 16-Way M 150 MX Series, Sealed (L-GY)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | 19119440 | J-35616-3 (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| III | 19329833 | J-35616-5 (PU) | J-38125-12A | 1326030-6 | Lear 17 | E | 2 |
| IV | 19329833 | J-35616-5 (PU) | J-38125-12A | 1326030-6 | Lear 17 | E | C |
| V | 19332835 | J-35616-5 (PU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

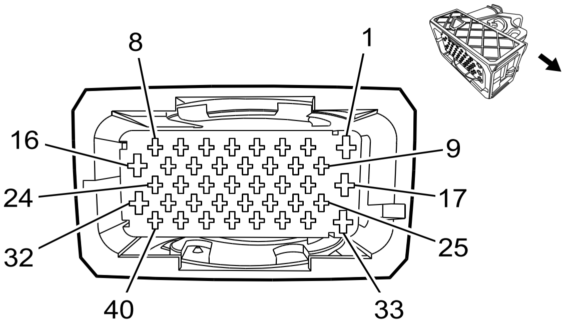
## X143 Reductant Control Module Jumper Harness to Engine Chassis Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.75 | RD/WH | 3440 | I | — | Battery Positive Voltage | 1 | 0.75 | RD/WH | 3440 | IV | — |
| 4 | 0.5 | WH | 4499 | I | — | High Speed GMLAN Serial Data (-) 7 | 4 | 0.5 | WH | 4499 | II | — |
| 5 | 0.5 | D-BU/BN | 4498 | I | — | High Speed GMLAN Serial Data (+) 7 | 5 | 0.5 | D-BU/BN | 4498 | II | — |
| 8 | 2.5 | BK | 550 | I | — | Ground | 8 | 2.5 | BK | 550 | V | — |
| 9 | 0.5 | VT/L-GN | 4320 | I | — | Selective Catalytic Reduction Power Module Wake-Up Signal | 9 | 0.5 | VT/L-GN | 4320 | III | — |
| 14 | 0.5 | WH | 4499 | I | — | High Speed GMLAN Serial Data (-) 7 | 14 | 0.5 | WH | 4499 | II | — |

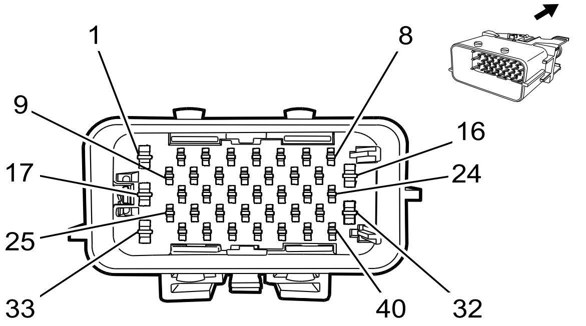
## X143 Reductant Control Module Jumper Harness to Engine Chassis Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 | 0.5 | D-BU/BN | 4498 | I | — | High Speed GMLAN Serial Data (+) 7 | 15 | 0.5 | D-BU/BN | 4498 | II | — |
| 16 | 2.5 | D-BU/BN | 3922 | I | — | DEF Heater Supply 2 | 16 | 2.5 | D-BU/BN | 3922 | V | — |

# X150 Forward Lamp Harness to Body Harness



2220548



2339640

## Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 4086709C1
Service Connector: Service by Harness - See Part Catalog
Description: 40-Way F 1.5, 2.8 Series, Sealed (BK)

## Connector Part Information

Harness Type: Body
OEM Connector: 13603208
Service Connector: 13576551
Description: 40-Way M 1.5 DSQ, 2.8 ATS Series, Sealed (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Available | Not Available | Not Available | Not Available |
| II | 13505807 | J-35616-3 (GY) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| III | 13584536 | J-35616-3 (GY) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

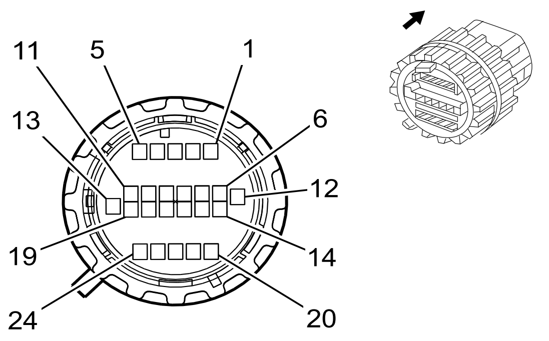
## X150 Forward Lamp Harness to Body Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | — | — | — | — | — | Not Occupied | 1 | — | — | — | — | — |
| 2 | 1 | BN/GY | 29 | I | — | Horn Control | 2 | 0.75 | BN/GY | 29 | II | — |
| 3 | 1 | GY/BU | 7538 | I | — | Left Front DRL Control | 3 | — | — | — | — | — |
| 4 | 1 | GY | 603 | I | — | A/C Low Pressure Switch Signal | 4 | 0.5 | BN/L-GN | 603 | II | — |
| 5 - 6 | — | — | — | — | — | Not Occupied | 5 - 6 | — | — | — | — | — |
| 7 | 1 | BU/BN | 7539 | I | — | Right Front DRL Control | 7 | — | — | — | — | — |
| 8 | 1 | WH | 311 | I | — | Right Headlamp High Beam Control | 8 | 0.5 | WH | 311 | II | — |
| 9 | 1 | WH | 711 | I | — | Left Headlamp High Beam Control | 9 | 0.5 | WH | 711 | II | — |

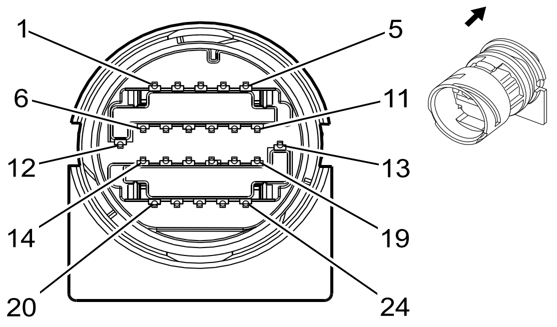
## X150 Forward Lamp Harness to Body Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 1 | BU/WH | 1314 | I | — | Left Front Turn Signal Lamp Control | 10 | 0.75 | D-BU/WH | 1314 | II | — |
| 11 | 1 | VT/GY | 709 | I | — | Left Park Lamp Control | 11 | 0.5 | VT/GY | 709 | II | — |
| 12 | 1 | BN/VT | 2234 | I | — | Front Fog Lamp Control | 12 | 0.5 | BN/VT | 2234 | II | — |
| 13 - 14 | — | — | — | — | — | Not Occupied | 13 - 14 | — | — | — | — | — |
| 15 | 1 | GN/VT | 1315 | I | — | Right Front Turn Signal Lamp Control | 15 | 0.75 | L-GN/VT | 1315 | II | — |
| 16 - 17 | — | — | — | — | — | Not Occupied | 16 - 17 | — | — | — | — | — |
| 18 | 1 | VT/GY | 139 | I | — | Run/Crank Ignition 1 Voltage | 18 | 1.5 | VT/GY | 139 | III | — |
| 19 | 1 | YE | 5530 | I | — | Hood Open Switch Signal | 19 | 0.5 | YE | 5530 | II | — |
| 20 | 1 | BN/GN | 109 | I | — | Hood Ajar Switch Signal | 20 | 0.5 | BN/L-GN | 109 | II | — |
| 21 | — | — | — | — | — | Not Occupied | 21 | — | — | — | — | — |
| 22 | 1 | YE | 312 | I | — | Right Headlamp Low Beam Control | 22 | 0.75 | YE | 312 | II | — |
| 23 | 1 | GY/BN | 309 | I | — | Right Park Lamp Control | 23 | 0.5 | GY/BN | 309 | II | — |
| 24 | — | — | — | — | — | Not Occupied | 24 | — | — | — | — | — |
| 25 | 1 | YE | 712 | I | — | Left Headlamp Low Beam Control | 25 | 0.75 | YE | 712 | II | — |
| 26 | — | — | — | — | — | Not Occupied | 26 | — | — | — | — | — |
| 27 | 1.5 | OG/GY | 6618 | I | — | Middle Front Discriminating Sensor Signal | 27 | 0.5 | OG/GY | 6618 | II | — |
| 28 | 1.5 | BK/OG | 6619 | I | — | Middle Front Discriminating Sensor Low Reference | 28 | 0.5 | BK/OG | 6619 | II | — |
| 29 - 40 | — | — | — | — | — | Not Occupied | 29 - 40 | — | — | — | — | — |

## X175 Engine Chassis Harness to Transmission Harness



1608549



1629123

### Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 15483856
Service Connector: 88988936
Description: 24-Way F (BK)

### Connector Part Information

Harness Type: Transmission
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 24-Way M

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| II | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

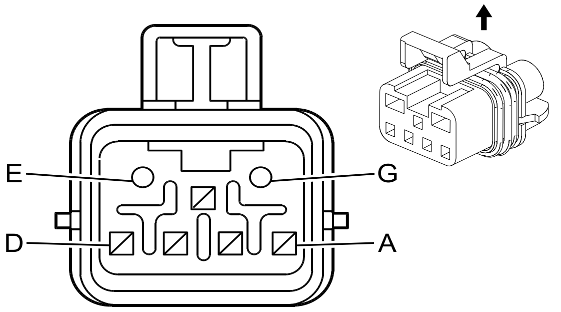
### X175 Engine Chassis Harness to Transmission Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.75 | L-GN | 152 | I | — | Driver Information Center Gauge LED Control | 1 | 0.75 | L-GN | 152 | II | — |
| 2 | 0.75 | YE | 133 | I | — | Sunroof Limit Switch Low Reference | 2 | 0.75 | YE | 133 | II | — |
| 3 | 0.75 | WH | 151 | I | — | Signal Ground | 3 | 0.75 | WH | 151 | II | — |
| 4 | 0.75 | D-BU | 117 | I | — | Right Front Speaker Signal (-) 1 | 4 | 0.75 | D-BU | 117 | II | — |
| 5 | — | — | — | — | — | Not Occupied | 5 | — | — | — | — | — |
| 6 | 0.75 | WH | 157 | I | — | Interior Lamp Control | 6 | 0.75 | WH | 157 | II | — |
| 7 | 0.75 | RD | 179 | I | — | Oil Pump Command Signal | 7 | 0.75 | RD | 179 | II | — |
| 8 | 0.75 | TN | 154 | I | — | Driver Information Center Date LED Control | 8 | 0.75 | TN | 154 | II | — |

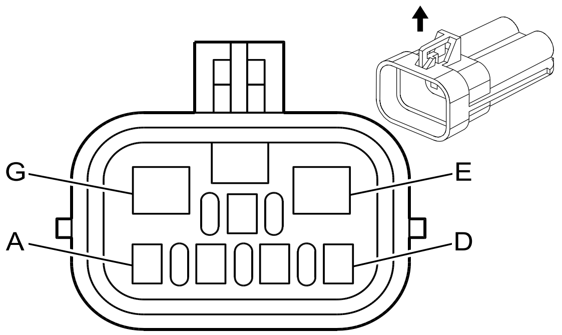
## X175 Engine Chassis Harness to Transmission Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 0.75 | L-GN | 158 | I | — | Cargo Lamp Switch Signal | 9 | 0.75 | L-GN | 158 | II | — |
| 10 | 0.75 | WH | 178 | I | — | Right Folding Top Motor Down Control | 10 | 0.75 | WH | 178 | II | — |
| 11 | 0.75 | L-GN | 177 | I | — | Left Folding Top Motor Down Control | 11 | 0.75 | L-GN | 177 | II | — |
| 12 | 0.75 | WH | 137 | I | — | Driver Information Center Switch Economy LED Control | 12 | 0.75 | WH | 137 | II | — |
| 13 | 0.75 | YE | 131 | I | — | Sunroof Limit Switch Range Signal | 13 | 0.75 | YE | 131 | II | — |
| 14 | 0.75 | OG | 111 | I | — | Hazard Switch Signal | 14 | 0.75 | OG | 111 | II | — |
| 15 | 0.75 | WH | 155 | I | — | Driver Seat Belt Retractor Solenoid Control | 15 | 0.75 | WH | 155 | II | — |
| 16 | 0.75 | YE | 171 | I | — | Power Window Master Switch Right Rear Down Signal | 16 | 0.75 | YE | 171 | II | — |
| 17 | 0.75 | OG | 136 | I | — | Driver Information Center Fuel LED Control | 17 | 0.75 | OG | 136 | II | — |
| 18 | 0.75 | OG | 138 | I | — | Rear Compartment Lid Pull Down Motor Control | 18 | 0.75 | OG | 138 | II | — |
| 19 | 0.75 | D-BU | 174 | I | — | Low Washer Fluid Indicator Control | 19 | 0.75 | D-BU | 174 | II | — |
| 20 | 0.75 | GY | 114 | I | — | Low Oil Pressure Switch Signal | 20 | 0.75 | GY | 114 | II | — |
| 21 | 0.75 | YE | 153 | I | — | Driver Information Center Oil LED Control | 21 | 0.75 | YE | 153 | II | — |
| 22 | 0.75 | D-BU | 173 | I | — | ABS Pump Motor Control | 22 | 0.75 | D-BU | 173 | II | — |
| 23 | 0.75 | WH | 134 | I | — | Charge Port Valve Command Signal | 23 | 0.75 | WH | 134 | II | — |
| 24 | — | — | — | — | — | Not Occupied | 24 | — | — | — | — | — |

## X180 Brake Booster Harness to Chassis Harness



816167



1372292

### Connector Part Information

Harness Type: Hydromax Interconnect
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F

### Connector Part Information

Harness Type: Chassis
OEM Connector: 3540569C1
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way M 150, 480 Metri-Pack Series, Sealed (BK)

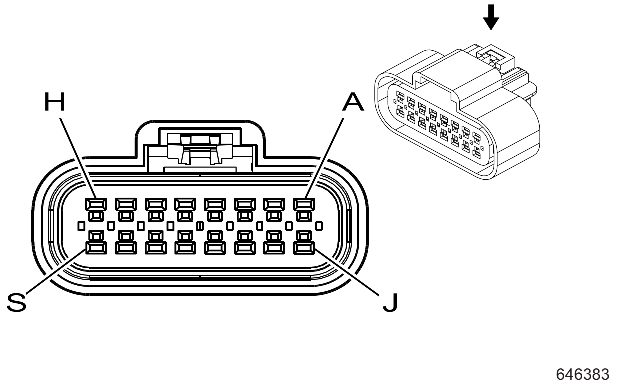
### Terminal Part Information

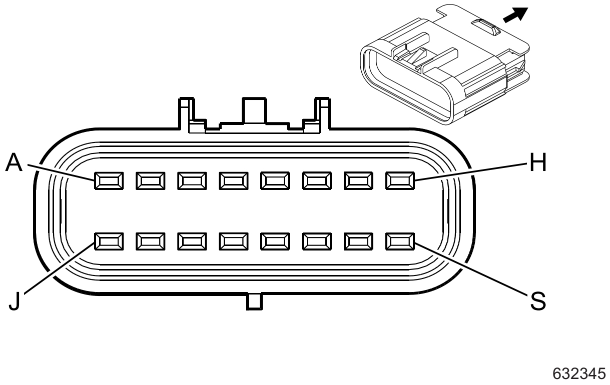
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### X180 Brake Booster Harness to Chassis Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| G | 3 | WH | 90 | I | — | Right Mirror Motor Left Control | G | 3 | WH | 90 | II | — |
| E | 6 | RD | 90 | I | — | Right Mirror Motor Left Control | E | 6 | RD | 90 | II | — |
| D | 0.75 | WH/BU | 6311 | I | — | Cruise/ETC/TCC Brake Signal | D | 0.75 | WH/BU | 6311 | II | — |
| C | 0.75 | GY | 90 | I | — | Right Mirror Motor Left Control | C | 0.75 | GY | 90 | II | — |
| B | 0.75 | GY | 90 | I | — | Right Mirror Motor Left Control | B | 0.75 | GY | 90 | II | — |
| A | 0.75 | GY | 90 | I | — | Right Mirror Motor Left Control | A | 0.75 | GY | 90 | II | — |
| F | — | — | — | — | — | Not Occupied | F | — | — | — | — | — |

# X191 Engine Chassis Harness to Engine Chassis Harness (PTO)





### Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 15326863
Service Connector: 19180282
Description: 16-Way F 150 GT Series, Sealed (BK)

### Connector Part Information

Harness Type: Engine Chassis
OEM Connector: 15326868
Service Connector: 15306364
Description: 16-Way M 150 Series, Sealed (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575412 | J-35616-14 (GN) | J-38125-553 | 12191819 | Delphi 8 | 2 | 1 |
| II | 13575412 | J-35616-14 (GN) | J-38125-553 | 12191819 | Delphi 8 | E | 1 |
| III | 13576364 | J-35616-3 (GY) | J-38125-553 | 15326269 | Delphi 19 | E | 4 |

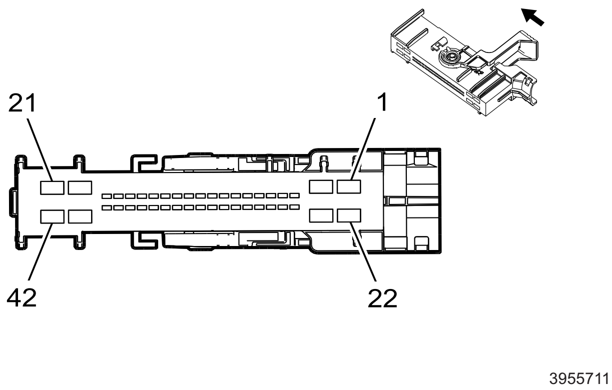
## X191 Engine Chassis Harness to Engine Chassis Harness (PTO)

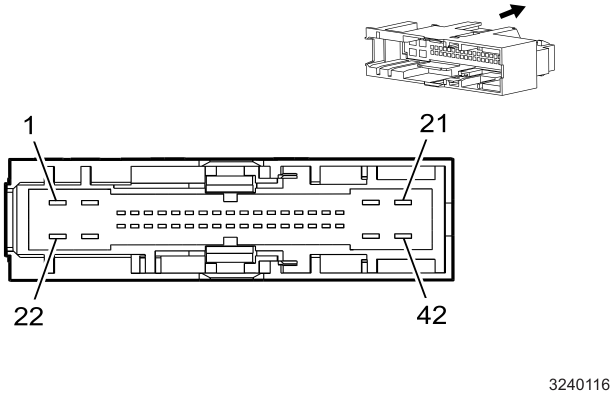
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 0.75 | BN/WH | 6085 | I | — | Power Take Off Remote Engine Start Switch Signal | A | 0.5 | BN/WH | 6085 | III | — |
| B | 0.75 | BN | 6381 | I | — | Power Take Off Relay Engage Signal | B | — | — | — | — | — |
| C | — | — | — | — | — | Not Occupied | C | — | — | — | — | — |
| D | 0.75 | BK | 550 | I | — | Ground | D | — | — | — | — | — |
| E - F | — | — | — | — | — | Not Occupied | E - F | — | — | — | — | — |
| G | 0.75 | YE | 2522 | I | — | Power Take Off Status Signal | G | — | — | — | — | — |
| H | 0.5 | VT/D-BU | 2562 | II | — | Power Take Off Relay Coil Control | H | — | — | — | — | — |
| J | 0.5 | WH/L-GN | 6142 | II | — | Power Take Off Engine Shutdown Signal | J | 0.5 | BN/WH | 6085 | III | — |

## X191 Engine Chassis Harness to Engine Chassis Harness (PTO) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | 0.75 | RD/VT | 2640 | I | — | Battery Positive Voltage | K | — | — | — | — | — |
| L - M | — | — | — | — | — | Not Occupied | L - M | — | — | — | — | — |
| N | 0.5 | D-BU/GY | 6089 | II | — | Power Take Off Remote Switch Set Signal 1 | N | — | — | — | — | — |
| P | — | — | — | — | — | Not Occupied | P | — | — | — | — | — |
| R | 0.5 | VT/WH | 239 | II | — | Run/Crank Ignition 1 Voltage | R | — | — | — | — | — |
| S | — | — | — | — | — | Not Occupied | S | — | — | — | — | — |

# X201 Steering Column Harness to Instrument Panel Harness





## Connector Part Information

Harness Type: Steering Column
OEM Connector: 13597189
Service Connector: Service by Harness - See Part Catalog
Description: 42-Way F 1.2, 2.8 Series (GY)

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33155180
Service Connector: 13597187
Description: 42-Way M 0.64, 2.8 Series (GY)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | 13575823 | J-35616-5 (PU) | J-38125-11A | 7114-4110-02 | Yazaki 9 | E | C |
| IV | 19301762 | J-35616-65B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| V | 19301763 | J-35616-65B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

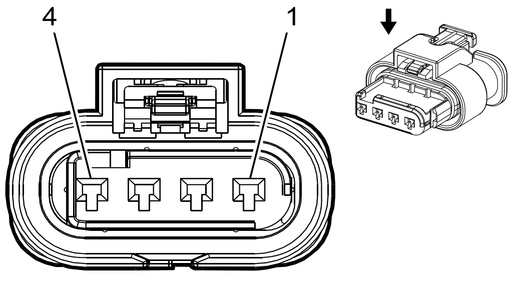
## X201 Steering Column Harness to Instrument Panel Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 - 3 | — | — | — | — | — | Not Occupied | 1 - 3 | — | — | — | — | — |
| 4 | 0.35 | RD/BU | 540 | I | — | Battery Positive Voltage | 4 | 0.35 | RD/D-BU | 540 | IV | — |
| 5 - 15 | — | — | — | — | — | Not Occupied | 5 - 15 | — | — | — | — | — |
| 16 | 0.35 | GN/WH | 111 | I | — | Hazard Switch Signal | 16 | 0.35 | L-GN/WH | 111 | IV | — |
| 17 | 0.5 | YE/WH | 816 | I | — | Brake Transmission Shift Interlock Solenoid Control | 17 | 0.35 | YE/WH | 816 | IV | — |
| 18 - 19 | — | — | — | — | — | Not Occupied | 18 - 19 | — | — | — | — | — |
| 20 | 0.35 | BK | 1050 | II | — | Ground | 20 | 0.5 | BK | 1050 | III | — |

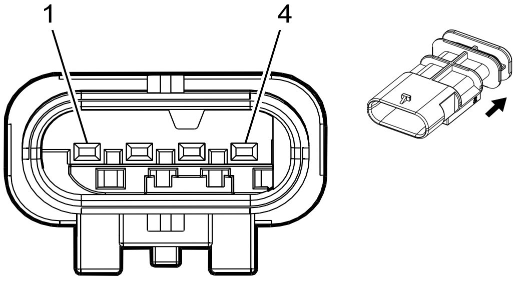
## X201 Steering Column Harness to Instrument Panel Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21 - 24 | — | — | — | — | — | Not Occupied | 21 - 24 | — | — | — | — | — |
| 25 | 0.35 | RD/ YE | 3040 | I | — | Battery Positive Voltage | 25 | 0.35 | RD/ YE | 3040 | IV | — |
| 26 - 29 | — | — | — | — | — | Not Occupied | 26 - 29 | — | — | — | — | — |
| 30 | 0.5 | OG | 7527 | I | — | Local Interconnect Network Serial Data Bus 5 | 30 | 0.5 | L-GN/ WH | 7527 | V | — |
| 31 - 32 | — | — | — | — | — | Not Occupied | 31 - 32 | — | — | — | — | — |
| 33 | 0.5 | GN/ BK | 3894 | I | — | Local Interconnect Network Serial Data Bus 12 | 33 | 0.5 | L-GN/ BK | 3894 | V | — |
| 34 - 37 | — | — | — | — | — | Not Occupied | 34 - 37 | — | — | — | — | — |
| 38 | 0.35 | BN | 6136 | I | — | Control | 38 | 0.35 | BN | 6136 | IV | — |
| 39 - 41 | — | — | — | — | — | Not Occupied | 39 - 41 | — | — | — | — | — |
| 42 | 1 | BK/ WH | 1851 | II | — | Signal Ground | 42 | 0.5 | BK/ WH | 1851 | III | — |

# X205 Instrument Panel Harness to Passenger Instrument Panel Air Bag Harness



2684560



2684563

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13854531
Service Connector: 13586137
Description: 4-Way F 1.2 Series, Sealed (YE)

## Connector Part Information

Harness Type: Passenger Instrument Panel Air Bag
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M (YE)

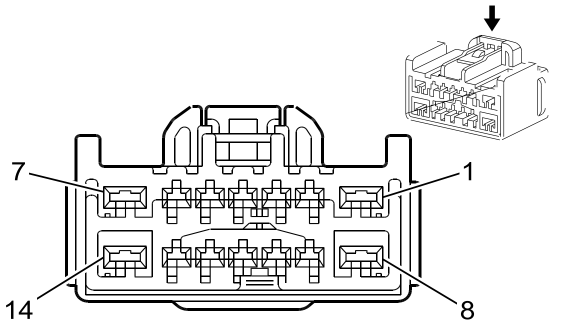
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

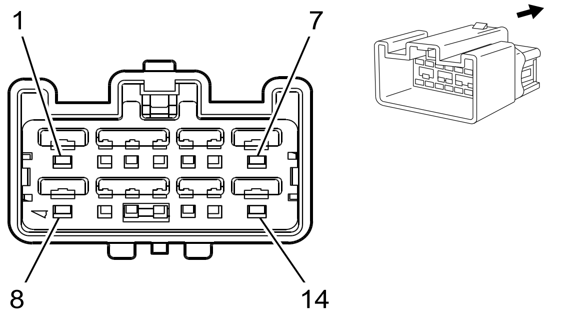
## X205 Instrument Panel Harness to Passenger Instrument Panel Air Bag Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | YE/OG | 3025 | I | — | Passenger IP Module Stage 1 High Control | 1 | 0.35 | YE | 3025 | II | AK5 |
| 2 | 0.35 | OG/WH | 3024 | I | — | Passenger IP Module Stage 1 Low Control | 2 | 0.35 | OG | 3024 | II | AK5 |
| 3 | 0.35 | GY/OG | 3027 | I | — | Passenger IP Module Stage 2 High Control | 3 | — | — | — | III | — |
| 4 | 0.35 | OG/VT | 3026 | I | — | Passenger IP Module Stage 2 Low Control | 4 | — | — | — | III | — |

# X215 HVAC Harness to Instrument Panel Harness



823290



1283905

## Connector Part Information

Harness Type: HVAC
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way F

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10846900
Service Connector: 88956523
Description: 14-Way M 1.5, 2.8 Series (L-GY)

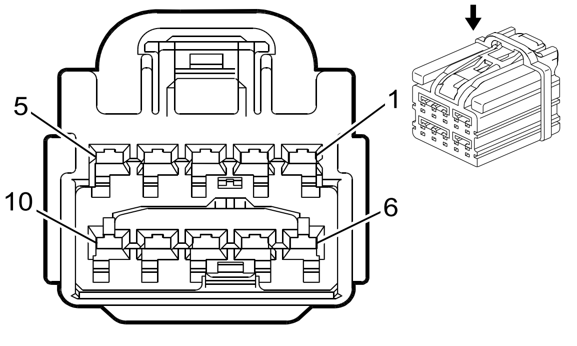
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | 13575818 | J-35616-3 (GY) | J-38125-553 | Not Available | Not Available | Not Available | Not Available |

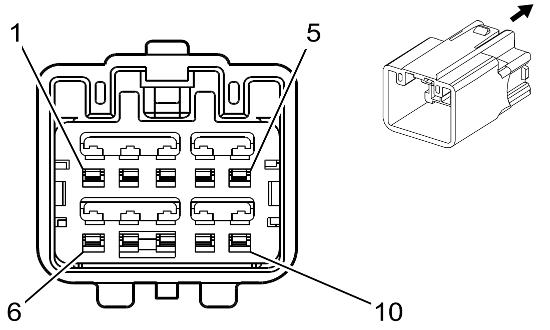
## X215 HVAC Harness to Instrument Panel Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | — | — | — | — | — | Not Occupied | 1 | — | — | — | — | — |
| 2 | 0.35 | L-GN | 5060 | I | — | Low Speed GMLAN Serial Data | 2 | 0.35 | L-GN | 5060 | II | — |
| 3 | 0.35 | L-GN/ YE | 7531 | I | — | Local Interconnect Network Serial Data Bus 9 | 3 | 0.35 | L-GN/ YE | 7531 | II | — |
| 4 | 0.5 | RD/ VT | 3340 | I | — | Battery Positive Voltage | 4 | 0.5 | RD/ VT | 3340 | II | — |
| 5 | 0.5 | VT/ GY | 539 | I | — | Run/Crank Ignition 1 Voltage | 5 | 0.5 | VT/ GY | 539 | II | — |
| 6 - 8 | — | — | — | — | — | Not Occupied | 6 - 8 | — | — | — | — | — |
| 9 | 0.35 | BK/ WH | 1851 | I | — | Signal Ground | 9 | 0.35 | BK/ WH | 1851 | II | — |
| 10 | 0.35 | BK/ YE | 1791 | I | — | Air Temperature Door Control Low Reference | 10 | 0.35 | BK/ YE | 1791 | II | — |
| 11 - 14 | — | — | — | — | — | Not Occupied | 11 - 14 | — | — | — | — | — |

# X216 Body Harness to HVAC Harness



1733159



1732767

## Connector Part Information

Harness Type: Body
OEM Connector: 10847018
Service Connector: 22708788
Description: 10-Way F YESC Kaizen Series (L-GY)

## Connector Part Information

Harness Type: HVAC
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way M

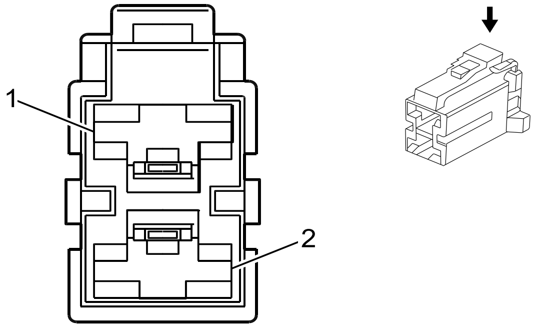
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575708 | J-35616-2A (GY) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| II | 13578891 | J-35616-2A (GY) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| III | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

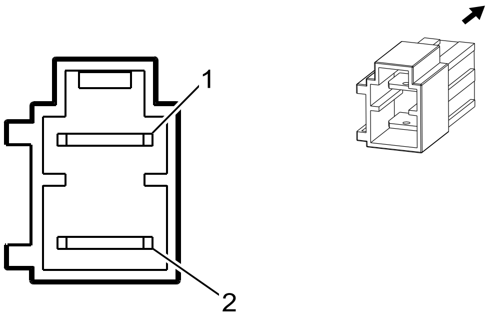
## X216 Body Harness to HVAC Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 - 3 | — | — | — | — | — | Not Occupied | 1 - 3 | — | — | — | — | — |
| 4 | 0.35 | BN/VT | 193 | II | — | Rear Defog Relay Control | 4 | 0.35 | BN/VT | 193 | III | — |
| 5 | 0.5 | D-BU/BN | 7573 | I | — | Electric Variable Displacement Supply | 5 | 0.5 | D-BU/BN | 7573 | III | — |
| 6 | 0.5 | D-BU/YE | 7574 | I | — | Electric Variable Displacement Control | 6 | 0.5 | D-BU/YE | 7574 | III | — |
| 7 - 10 | — | — | — | — | — | Not Occupied | 7 - 10 | — | — | — | — | — |

# X217 Body Harness to HVAC Harness



1283880



1989490

## Connector Part Information

Harness Type: Body
OEM Connector: 10721337
Service Connector: 19368303
Description: 2-Way F 56 Series (BK)

## Connector Part Information

Harness Type: HVAC
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M

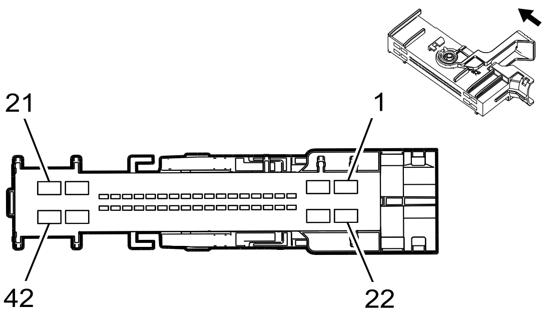
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-22 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-21 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

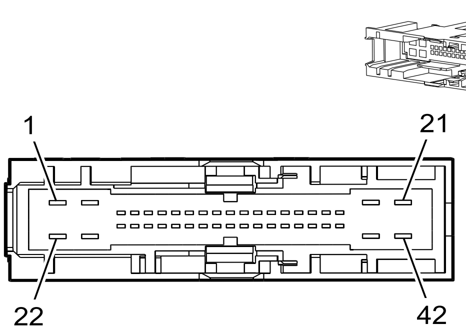
## X217 Body Harness to HVAC Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4 | RD/VT | 542 | I | — | Battery Positive Voltage | 1 | 4 | RD/VT | 542 | II | — |
| 2 | 10 | RD/GY | 642 | I | — | Battery Positive Voltage | 2 | 10 | RD/GY | 642 | II | — |

# X225 Body Harness to Instrument Panel Harness



3955711



3240116

## Connector Part Information

Harness Type: Body
OEM Connector: 33160247
Service Connector: 19301820
Description: 42-Way F 1.2, 2.8 Series (GY)

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33155179
Service Connector: 13586233
Description: 42-Way M 0.64, 2.8 Series (GY)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300649 | J-35616-16 (LT GN) | J-38125-21 | Not Available | Not Available | Not Available | Not Available |
| II | 19300649 | J-35616-4A (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| III | 19301752 | J-35616-4A (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| IV | 19301761 | J-35616-4A (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| V | 13575821 | J-35616-5 (PU) | J-38125-11A | 7114-4110-02 | Yazaki 9 | E | C |
| VI | 13575823 | J-35616-5 (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| VII | 19301762 | J-35616-65B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| VIII | 19301763 | J-35616-65B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

## X225 Body Harness to Instrument Panel Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | — | — | — | — | — | Not Occupied | 1 | — | — | — | — | — |
| 2 | 1.5 | BK | 1850 | III | — | Ground | 2 | 0.75 | BK | 1850 | VI | — |
| 3 | — | — | — | — | — | Not Occupied | 3 | — | — | — | — | — |
| 4 | 0.5 | WH/BN | 6815 | I | — | Inadvertent Power Control | 4 | 0.5 | WH/BN | 6815 | VIII | — |
| 5 | 0.35 | GY/WH | 3272 | I | — | Remote Function Actuator Control | 5 | 0.35 | GY/WH | 3272 | VII | — |

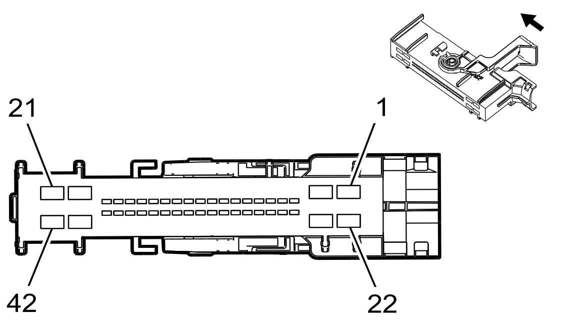
## X225 Body Harness to Instrument Panel Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 0.35 | D-BU/WH | 3275 | I | — | Remote Function Actuator Receive Signal | 6 | 0.35 | D-BU/WH | 3275 | VII | — |
| 7 | 0.35 | L-GN/BN | 507 | I | — | Wait To Start Indicator Control | 7 | 0.35 | L-GN/BN | 507 | VII | — |
| 8 | 0.5 | GY/VT | 3998 | I | — | MOST Serial Data (+) | 8 | 0.5 | GY/VT | 3998 | VIII | — |
| 9 - 10 | — | — | — | — | — | Not Occupied | 9 - 10 | — | — | — | — | — |
| 11 | 0.5 | WH/L-GN | 3997 | I | — | MOST Serial Data (-) | 11 | 0.5 | WH/L-GN | 3997 | VIII | — |
| 12 | 0.5 | BN/D-BU | 118 | I | — | Left Front Speaker Signal (-) 1 | 12 | 0.5 | BN/D-BU | 118 | VIII | — |
| 13 | — | — | — | — | — | Not Occupied | 13 | — | — | — | — | — |
| 14 | 0.5 | L-GN | 199 | I | — | Left Rear Speaker Control (+) | 14 | 0.5 | L-GN | 199 | VIII | — |
| 15 | 0.5 | BN/L-GN | 603 | I | — | A/C Low Pressure Switch Signal | 15 | 0.5 | BN/L-GN | 603 | VIII | — |
| 16 - 19 | — | — | — | — | — | Not Occupied | 16 - 19 | — | — | — | — | — |
| 20 | 0.5<br>0.75 | BN/D-BU<br>BN/D-BU | 118<br>118 | IV<br>IV | UQ3<br>UQ3/UQ5 | Left Front Speaker Signal (-) 1<br>Left Front Speaker Signal (-) 1 | 20 | 0.75 | BN/D-BU | 118 | VI | — |
| 21 - 22 | — | — | — | — | — | Not Occupied | 21 - 22 | — | — | — | — | — |
| 23 | 0.35 | L-GN | 4512 | II | — | Wireless Charging System Charge Indicator Control | 23 | 0.35 | L-GN | 4512 | V | — |
| 24 | 0.35 | L-GN/WH | 3438 | I | — | Exhaust Brake Switch Signal | 24 | 0.35 | L-GN/WH | 3438 | VII | — |
| 25 | 0.35 | BN/WH | 419 | I | — | Check Engine Indicator Control | 25 | 0.35 | BN/WH | 419 | VII | — |
| 26 | 0.35 | YE/L-GN | 3274 | I | — | Remote Function Actuator Transmit Signal | 26 | 0.35 | YE/L-GN | 3274 | VII | — |
| 27 | 0.35 | GY | 3273 | I | — | Remote Function Actuator Low Reference | 27 | 0.35 | GY | 3273 | VII | — |
| 28 | 0.5 | BK | 1850 | I | — | Ground | 28 | 0.5 | BK | 1850 | VIII | — |
| 29 | 0.5 | WH/L-GN | 3997 | I | — | MOST Serial Data (-) | 29 | 0.5 | WH/L-GN | 3997 | VIII | — |

## X225 Body Harness to Instrument Panel Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | 0.35 | L-GN/WH | 488 | I | — | Power Take Off Control Switch | 30 | 0.35 | L-GN/WH | 488 | VII | — |
| 31 | 0.35 | BN/L-GN | 4311 | I | — | Power Take Off Enable In Cab Switch Normally Closed Signal | 31 | 0.35 | BN/L-GN | 4311 | VII | — |
| 32 | 0.5 | GY/VT | 3998 | I | — | MOST Serial Data (+) | 32 | 0.5 | GY/VT | 3998 | VIII | — |
| 33 | 0.5 | D-BU | 201 | I | — | Left Front Speaker Control (+) 1 | 33 | 0.5 | D-BU | 201 | VIII | — |
| 34 | — | — | — | — | — | Not Occupied | 34 | — | — | — | — | — |
| 35 | 0.5 | L-GN/BK | 116 | I | — | Left Rear Speaker Signal (-) | 35 | 0.5 | L-GN/BK | 116 | VIII | — |
| 36 | 0.5 | L-GN/YE | 2081 | I | — | Exhaust Brake Switch Control | 36 | 0.5 | L-GN/YE | 2081 | VIII | — |
| 37 | 0.35 | VT/YE | 43 | I | — | Accessory Ignition Voltage | 37 | 0.35 | VT/YE | 43 | VII | — |
| 38 - 39 | — | — | — | — | — | Not Occupied | 38 - 39 | — | — | — | — | — |
| 40 | 0.5 | L-GN/GY | 6135 | I | — | Local Interconnect Network Serial Data Bus 4 | 40 | 0.5 | L-GN/GY | 6135 | VIII | — |
| 41 | 0.5<br>0.75 | D-BU<br>D-BU | 201<br>201 | IV<br>IV | UQ3<br>UQ3/UQ5 | Left Front Speaker Control (+) 1<br>Left Front Speaker Control (+) 1 | 41 | 0.75 | D-BU | 201 | VI | — |
| 42 | — | — | — | — | — | Not Occupied | 42 | — | — | — | — | — |

# X275 Instrument Panel Harness to Body Harness



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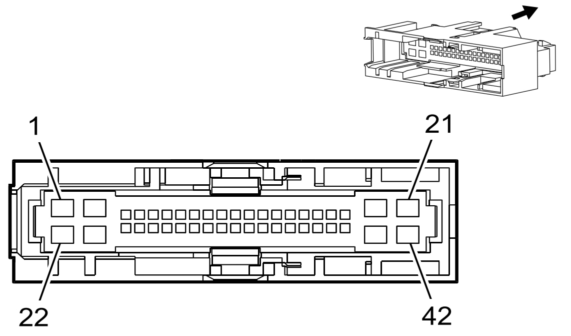


3240118

### Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33160245
Service Connector: 19332682
Description: 42-Way F 1.2, 2.8 Series (YE)

### Connector Part Information

Harness Type: Body
OEM Connector: 33155177
Service Connector: 13597184
Description: 42-Way M 0.64, 2.8 Series (YE)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13582232 | J-35616-16 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| II | 19300649 | J-35616-16 (LT GN) | J-38125-21 | Not Available | Not Available | Not Available | Not Available |
| III | 19300649 | J-35616-4A (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| IV | 19301752 | J-35616-4A (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| V | 19301761 | J-35616-4A (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| VI | 19370818 | J-35616-16 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| VII | 13575823 | J-35616-5 (PU) | J-38125-11A | 7114-4110-02 | Yazaki 9 | E | C |
| VIII | 13575823 | J-35616-5 (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| IX | 13575824 | J-35616-5 (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| X | 19301762 | J-35616-65B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| XI | 19301763 | J-35616-65B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| XII | 19329836 | J-35616-65B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

## X275 Instrument Panel Harness to Body Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | — | — | — | — | — | Not Occupied | 1 | — | — | — | — | — |

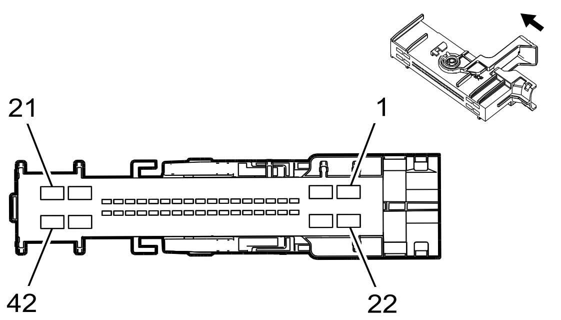
## X275 Instrument Panel Harness to Body Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 1.5 | VT/ YE | 143 | IV | — | Accessory Ignition Voltage | 2 | 1.5 | VT/ YE | 143 | IX | — |
| 3 | 0.35 | D-BU | 2060 | II | — | Auxiliary Detection Signal | 3 | 0.5 | D-BU | 2060 | XI | — |
| 4 | 0.5 | Bare | 5842 | II | — | Auxiliary Audio Screen 2 | 4 | 0.5 | Bare | 5842 | XI | — |
| 5 | 0.35 | VT | 5843 | II | — | Auxiliary Audio Common Signal | 5 | 0.5 | VT | 5843 | XI | — |
| 6 | 0.35 | GY | 5839 | II | — | Left Auxiliary Audio Signal 2 | 6 | 0.5 | GY | 5839 | XI | — |
| 7 | 0.35 | L-GN | 5841 | II | — | Right Auxiliary Audio Signal 2 | 7 | 0.5 | L-GN | 5841 | XI | — |
| 8 | 0.35 | GY/ YE | 6972 | II | — | Camera Signal 2 + | 8 | 0.35 | GY/ YE | 6972 | X | — |
| 9 | 0.35 | WH/ D-BU | 6973 | II | — | Camera Signal 2 | 9 | 0.35 | WH/ D-BU | 6973 | X | — |
| 10 - 11 | — | — | — | — | — | Not Occupied | 10 - 11 | — | — | — | — | — |
| 12 | 0.5 | YE/ BK | 117 | II | — | Right Front Speaker Signal (-) 1 | 12 | 0.5 | YE/ BK | 117 | XI | — |
| 13 | 0.5 | BN/ WH | 1429 | II | — | Standing Lamp Relay Control | 13 | 0.5 | BN/ WH | 1429 | XI | — |
| 14 | 0.5 | WH | 46 | II | — | Right Rear Speaker Control (+) | 14 | 0.5 | WH | 46 | XI | — |
| 15 | 0.35 | YE/ OG | 3025 | I | — | Passenger IP Module Stage 1 High Control | 15 | 0.35 | YE/ OG | 3025 | XII | — |
| 16 | 0.35 | OG/ WH | 3024 | I | — | Passenger IP Module Stage 1 Low Control | 16 | 0.35 | OG/ WH | 3024 | XII | — |
| 17 | 0.35 | GY/ OG | 3027 | I | — | Passenger IP Module Stage 2 High Control | 17 | 0.35 | GY/ OG | 3027 | XII | — |
| 18 | 0.35 | OG/ VT | 3026 | I | — | Passenger IP Module Stage 2 Low Control | 18 | 0.35 | OG/ VT | 3026 | XII | — |
| 19 | 0.75 | BK/ WH | 1851 | II | — | Signal Ground | 19 | 0.75 | BK/ WH | 1851 | XI | — |
| 20 | 0.75 | YE/ BK | 117 | V | — | Right Front Speaker Signal (-) 1<br>Right Front Speaker Signal (-) 1 | 20 | 0.5<br>0.75 | YE/ BK<br>YE/ BK | 117<br>117 | VIII<br>VIII | IOB<br>UQ3/UQ5 |
| 21 | 1.5 | VT/ YE | 243 | IV | — | Accessory Ignition Voltage | 21 | 1.5 | VT/ YE | 243 | IX | — |

## X275 Instrument Panel Harness to Body Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 22 | — | — | — | — | — | Not Occupied | 22 | — | — | — | — | — |
| 23 | 0.35<br>0.5<br>0.35 | WH/ D-BU<br>WH/ D-BU<br>WH/ D-BU | 5986<br>5986<br>5986 | V<br>V<br>III | IO5/IO6<br>UE1<br>-UE1 | Serial Data Communication Enable<br>Serial Data Communication Enable<br>Serial Data Communication Enable | 23 | 0.5 | WH/ D-BU | 5986 | VII | — |
| 24 | — | — | — | — | — | Not Occupied | 24 | — | — | — | — | — |
| 25 | 0.5 | L-GN | 5060 | II | — | Low Speed GMLAN Serial Data | 25 | 0.5 | L-GN | 5060 | XI | — |
| 26 - 28 | — | — | — | — | — | Not Occupied | 26 - 28 | — | — | — | — | — |
| 29 | 0.35 | Bare | 6974 | II | — | Camera Low Reference | 29 | 0.35 | Bare | 6974 | X | — |
| 30 | — | — | — | — | — | Not Occupied | 30 | — | — | — | — | — |
| 31 | 0.5 | D-BU/ YE | 68 | II | — | Low Coolant Level Indicator Control | 31 | 0.5 | D-BU/ YE | 68 | XI | — |
| 32 | — | — | — | — | — | Not Occupied | 32 | — | — | — | — | — |
| 33 | 0.5 | YE | 200 | II | — | Right Front Speaker Control (+) 1 | 33 | 0.5 | YE | 200 | XI | — |
| 34 | — | — | — | — | — | Not Occupied | 34 | — | — | — | — | — |
| 35 | 0.5 | D-BU/ BK | 115 | II | — | Right Rear Speaker Signal (-) | 35 | 0.5 | D-BU/ BK | 115 | XI | — |
| 36 | 0.35 | D-BU/ OG | 7328 | II | — | Passenger IP Module Disable Switch Low Reference | 36 | 0.35 | D-BU/ OG | 7328 | X | — |
| 37 | 0.35 | VT/ OG | 371 | II | — | Passenger IP Module Disable Switch Signal | 37 | 0.35 | VT/ OG | 371 | X | — |
| 38 | 1 | BK | 1050 | VI | — | Ground | 38 | 0.75 | BK | 1050 | XI | — |
| 39 | 0.75 | BK | 1050 | II | — | Ground | 39 | 0.75 | BK | 1050 | XI | — |
| 40 | — | — | — | — | — | Not Occupied | 40 | — | — | — | — | — |
| 41 | 0.75 | YE | 200 | V | — | Right Front Speaker Control (+) 1<br>Right Front Speaker Control (+) 1 | 41 | 0.5<br>0.75 | YE<br>YE | 200<br>200 | VIII<br>VIII | UQ3<br>IO5/IO6 |
| 42 | — | — | — | — | — | Not Occupied | 42 | — | — | — | — | — |

# X300 Instrument Panel Harness to Floor Console Harness (D07)



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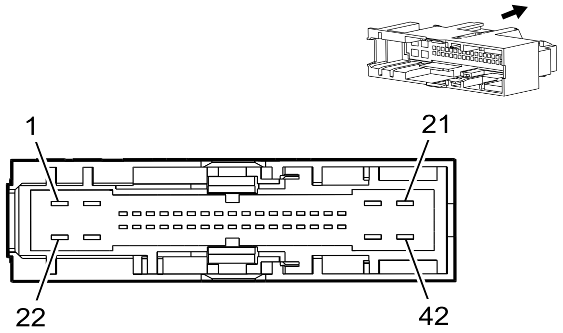


3240116

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33160247
Service Connector: 19301820
Description: 42-Way F 1.2, 2.8 Series (GY)

## Connector Part Information

Harness Type: Floor Console
OEM Connector: 33155180
Service Connector: Service by Harness - See Part Catalog
Description: 42-Way M 0.64, 2.8 Series (GY)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300649 | J-35616-16 (LT GN) | J-38125-21 | Not Available | Not Available | Not Available | Not Available |
| II | 19301752 | J-35616-4A (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| III | 19301761 | J-35616-4A (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| IV | Not Required | J-35616-5 (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| V | Not Required | J-35616-65B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

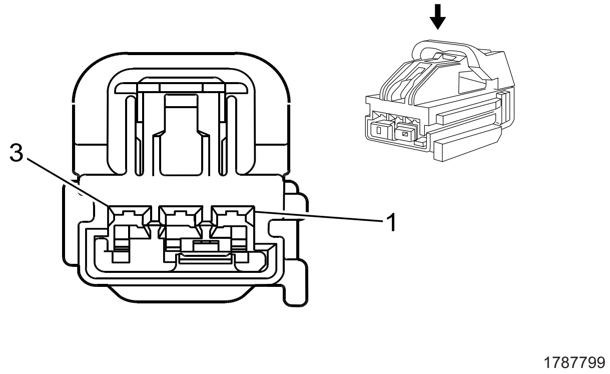
## X300 Instrument Panel Harness to Floor Console Harness (D07)

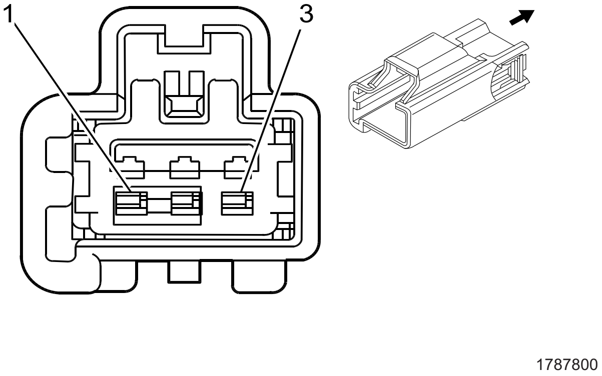
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | VT/YE | 243 | II | — | Accessory Ignition Voltage | 1 | 1.5 | VT/YE | 243 | IV | — |
| 2 | 1.5 | VT/YE | 143 | II | — | Accessory Ignition Voltage | 2 | 1.5 | VT/YE | 143 | IV | — |
| 3 | — | — | — | — | — | Not Occupied | 3 | — | — | — | — | — |
| 4 | 0.35 | D-BU | 2060 | I | — | Auxiliary Detection Signal | 4 | 0.35 | D-BU | 2060 | V | — |
| 5 | 0.75 | BK | 2550 | I | — | Ground | 5 | 0.75 | BK | 2550 | V | — |
| 6 | — | — | — | — | — | Not Occupied | 6 | — | — | — | — | — |
| 7 | 0.35 | VT/YE | 43 | I | — | Accessory Ignition Voltage | 7 | 0.35 | VT/YE | 43 | V | — |

## X300 Instrument Panel Harness to Floor Console Harness (D07) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 - 12 | — | — | — | — | — | Not Occupied | 8 - 12 | — | — | — | — | — |
| 13 | 0.5 | Bare | 5842 | I | — | Auxiliary Audio Screen 2 | 13 | 0.5 | Bare | 5842 | V | — |
| 14 | 0.35 | VT | 5843 | I | — | Auxiliary Audio Common Signal | 14 | 0.35 | VT | 5843 | V | — |
| 15 | — | — | — | — | — | Not Occupied | 15 | — | — | — | — | — |
| 16 | — | — | — | — | — | Left Rear Seat Audio Headphone Signal | 16 | 0.35 | L-GN/WH | 3355 | V | — |
| 17 | — | — | — | — | — | Rear Seat Audio Headphone Low Reference | 17 | 0.5 | Bare | 3354 | V | — |
| 18 - 22 | — | — | — | — | — | Not Occupied | 18 - 22 | — | — | — | — | — |
| 23 | 2.5 | BK | 1050 | II | — | Ground | 23 | 2.5 | BK | 1050 | IV | — |
| 24 | — | — | — | — | — | Battery Positive Voltage | 24 | 0.75 | RD/VT | 340 | V | — |
| 25 - 27 | — | — | — | — | — | Not Occupied | 25 - 27 | — | — | — | — | — |
| 28 | 0.5 | WH/BN | 6815 | I | — | Inadvertent Power Control | 28 | 0.5 | WH/BN | 6815 | V | — |
| 29 | 0.35 | L-GN | 4512 | I | — | Wireless Charging System Charge Indicator Control | 29 | 0.35 | L-GN | 4512 | V | — |
| 30 - 33 | — | — | — | — | — | Not Occupied | 30 - 33 | — | — | — | — | — |
| 34 | 0.35 | L-GN | 5841 | I | — | Right Auxiliary Audio Signal 2 | 34 | 0.35 | L-GN | 5841 | V | — |
| 35 | 0.35 | GY | 5839 | I | — | Left Auxiliary Audio Signal 2 | 35 | 0.35 | GY | 5839 | V | — |
| 36 | — | — | — | — | — | Not Occupied | 36 | — | — | — | — | — |
| 37 | — | — | — | — | — | Right Rear Seat Audio Headphone Signal | 37 | 0.35 | BN/GY | 3357 | V | — |
| 38 | — | — | — | — | — | Rear Seat Audio Headphone Common Signal | 38 | 0.35 | D-BU/VT | 3356 | V | — |
| 39 - 41 | — | — | — | — | — | Not Occupied | 39 - 41 | — | — | — | — | — |
| 42 | 0.75 | RD/VT | 340 | III | — | Battery Positive Voltage | 42 | 0.75 | RD/VT | 340 | IV | — |

# X302 Wireless Charger Harness to Floor Console Harness (K4C)





## Connector Part Information

Harness Type: Wireless Charger
OEM Connector: 10847008
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.5 Kaizen Series (L-GY)

## Connector Part Information

Harness Type: Floor Console
OEM Connector: 10846803
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way M 1.5 YESC Kaizen Series (L-GY)

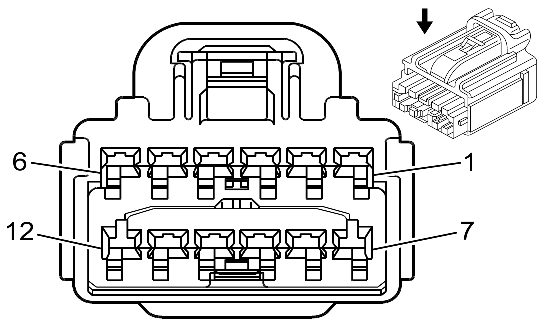
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

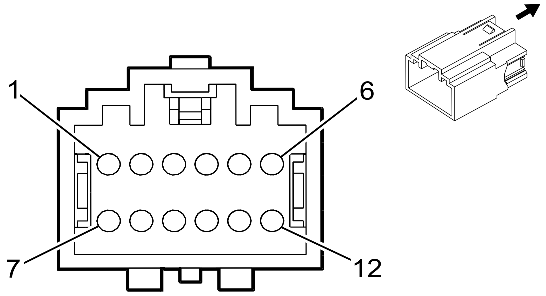
## X302 Wireless Charger Harness to Floor Console Harness (K4C)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | VT/YE | 43 | I | — | Accessory Ignition Voltage | 1 | 0.35 | VT/YE | 43 | II | — |
| 2 | 0.75 | BK | 1050 | I | — | Ground | 2 | 0.75 | BK | 1050 | II | — |
| 3 | 0.35 | L-GN | 4512 | I | — | Wireless Charging System Charge Indicator Control | 3 | 0.35 | L-GN | 4512 | II | — |

# X305 Instrument Panel Harness to Headliner Harness



1856789



3240100

## Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13507762
Service Connector: 89046712
Description: 12-Way F YESC Kaizen Series (L-GY)

## Connector Part Information

Harness Type: Headliner
OEM Connector: 13507705
Service Connector: 88988266
Description: 12-Way M 1.5 Series (L-GY)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575850 | J-35616-2A (GY) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| II | 13575818 | J-35616-3 (GY) | J-38125-553 | Not Available | Not Available | Not Available | Not Available |

## X305 Instrument Panel Harness to Headliner Harness

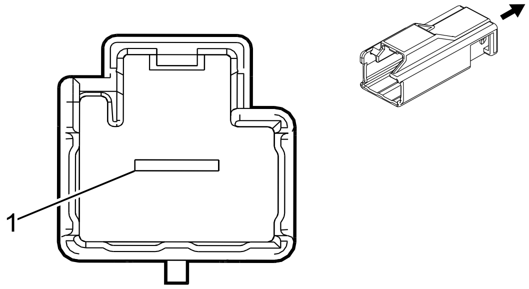
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | Ground | 1 | 0.5<br>0.75 | BK/WH<br>BK | 2550<br>1050 | II<br>II | —<br>— |
| 2 | — | — | — | — | — | Exterior Courtesy Lamp Control | 2 | 0.75 | WH/VT | 1430 | II | — |
| 3 | 0.35 | BK/BN | 654 | I | — | Interior Lamp Defeat Switch Signal<br>Cellular Telephone Microphone Low Reference | 3 | 0.35<br>0.35 | GY/L-GN<br>BK/BN | 328<br>654 | II<br>II | —<br>(IO5/IO6/IOB)-UE1 |
| 4 | 0.35 | D-BU | 655 | I | — | Cellular Telephone Microphone Signal | 4 | 0.35 | D-BU | 655 | II | — |
| 5 | — | — | — | — | — | Battery Positive Voltage | 5 | 0.5 | RD/L-GN | 1540 | II | — |
| 6 - 8 | — | — | — | — | — | Not Occupied | 6 - 8 | — | — | — | — | — |
| 9 | — | — | — | — | — | LED Ambient Lighting Control 2 | 9 | 0.35 | VT/L-GN | 7558 | II | — |

## X305 Instrument Panel Harness to Headliner Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | | | | | | Entertainment Remote Enable Signal | 10 | 0.35<br>0.5 | L-GN/YE<br>YE | 7066<br>6817 | II<br>II | —<br>— |
| 11 - 12 | — | — | — | — | — | Not Occupied | 11 - 12 | — | — | — | — | — |

# X307 Rear Window Defogger - Positive Harness to Body Harness (C49)

—



3240098

### Connector Part Information

Harness Type: Rear Window Defog - Positive
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F

### Connector Part Information

Harness Type: Body
OEM Connector: 13953570
Service Connector: 19333227
Description: 1-Way M 6.3 Series (BK)

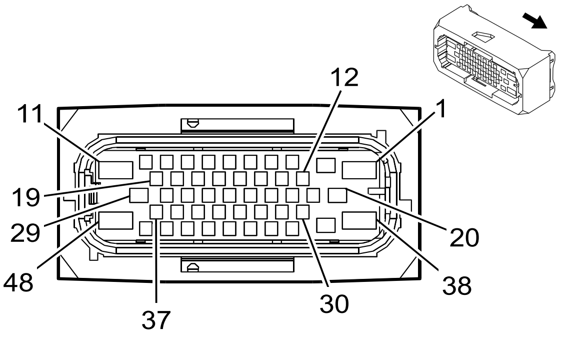
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-42 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-43 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

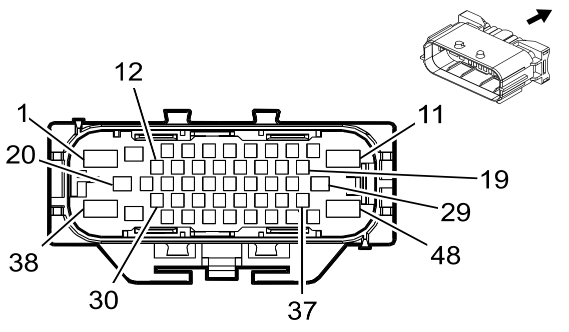
## X307 Rear Window Defogger - Positive Harness to Body Harness (C49)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.5 | BN/VT | 293 | I | — | Rear Defog Element Control | 1 | 2.5 | BN/VT | 293 | II | — |

# X310 Driver Seat Cushion Harness to Body Harness (-(A95/AG1))



3620765



3240126

## Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 15509611

Service Connector: Service by Harness - See Part Catalog

Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed (YE)

## Connector Part Information

Harness Type: Body

OEM Connector: 15513436

Service Connector: 19301796

Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | 13505807 | J-35616-3 (GY) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| III | 13578881 | J-35616-5 (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| IV | 19329756 | J-35616-32 (OR) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| V | 19352419 | J-35616-3 (GY) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

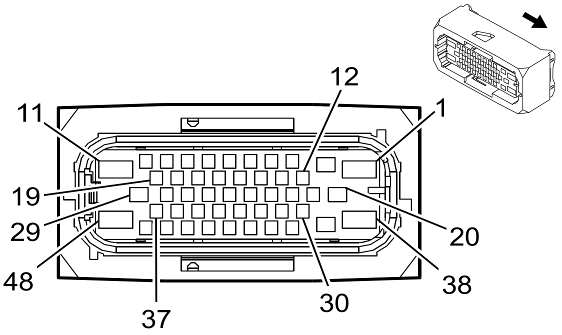
## X310 Driver Seat Cushion Harness to Body Harness (-(A95/AG1))

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | — | — | — | — | — | Not Occupied | 1 | — | — | — | — | — |
| 2 | — | — | — | — | — | Battery Positive Voltage | 2 | 2.5 | RD/YE | 5040 | III | — |
| 3 - 5 | — | — | — | — | — | Not Occupied | 3 - 5 | — | — | — | — | — |
| 6 | 0.35 | OG/BN | 238 | I | — | Driver Seat Belt Switch Signal | 6 | 0.35 | OG/BN | 238 | V | — |
| 7 | 0.35 | BK/OG | 1363 | I | — | Driver Seat Belt Switch Low Reference | 7 | 0.35 | BK/OG | 1363 | V | — |
| 8 - 10 | — | — | — | — | — | Not Occupied | 8 - 10 | — | — | — | — | — |
| 11 | — | — | — | — | — | Ground | 11 | 4 | BK | 1150 | IV | — |

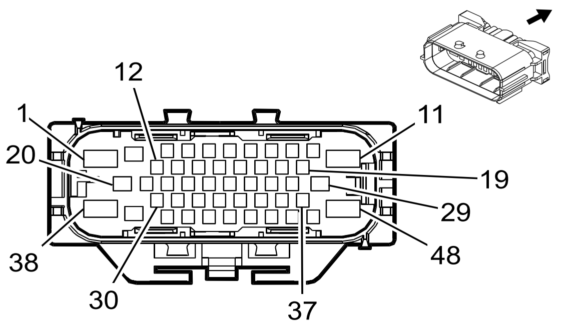
## X310 Driver Seat Cushion Harness to Body Harness (-(A95/AG1)) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 - 21 | — | — | — | — | — | Not Occupied | 12 - 21 | — | — | — | — | — |
| 22 | — | — | — | — | — | Driver Heated Seat Element Low Reference | 22 | 0.75 | BN/ BK | 2078 | II | — |
| 23 - 27 | — | — | — | — | — | Not Occupied | 23 - 27 | — | — | — | — | — |
| 28 | — | — | — | — | — | Driver Heated Seat NTC Low Reference | 28 | 0.5 | BK/ YE | 2080 | II | — |
| 29 | — | — | — | — | — | Not Occupied | 29 | — | — | — | — | — |
| 30 | — | — | — | — | — | Driver Heated Back NTC Signal | 30 | 0.5 | D-BU | 2425 | II | — |
| 31 | — | — | — | — | — | Not Occupied | 31 | — | — | — | — | — |
| 32 | — | — | — | — | — | Driver Heated Seat NTC Signal | 32 | 0.5 | YE/ GY | 2079 | II | — |
| 33 - 35 | — | — | — | — | — | Not Occupied | 33 - 35 | — | — | — | — | — |
| 36 | — | — | — | — | — | Driver Heated Back Element Control | 36 | 0.75 | BN | 2432 | II | — |
| 37 | — | — | — | — | — | Driver Heated Seat Element Control | 37 | 0.75 | BN/ VT | 2077 | II | — |
| 38 - 48 | — | — | — | — | — | Not Occupied | 38 - 48 | — | — | — | — | — |

# X310 Driver Seat Cushion Harness to Body Harness ((A95/AG1)+KA1)



3620765



3240126

## Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 15509588

Service Connector: Service by Harness - See Part Catalog

Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed (YE)

## Connector Part Information

Harness Type: Body

OEM Connector: 15513436

Service Connector: 19301796

Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-40 (BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| IV | 13505807 | J-35616-3 (GY) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| V | 13578881 | J-35616-5 (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| VI | 19329756 | J-35616-32 (OR) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| VII | 19352419 | J-35616-3 (GY) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

## X310 Driver Seat Cushion Harness to Body Harness ((A95/AG1)+KA1)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | — | — | — | — | — | Not Occupied | 1 | — | — | — | — | — |
| 2 | 2.5 | RD/YE | 5040 | III | — | Battery Positive Voltage | 2 | 2.5 | RD/YE | 5040 | V | — |
| 3 | 1.5 | YE | 5129 | I | — | Adjustable Pedal Actuator Rearward Control | 3 | — | — | — | — | — |
| 4 | 1.5 | L-GN/VT | 5130 | I | — | Adjustable Pedal Actuator Forward Control | 4 | — | — | — | — | — |

## X310 Driver Seat Cushion Harness to Body Harness ((A95/AG1)+KA1) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 0.35 | OG/ L-GN | 5055 | I | — | Driver Seat Position Switch Signal | 5 | — | — | — | — | — |
| 6 | 0.35 | OG/ BN | 238 | I | — | Driver Seat Belt Switch Signal | 6 | 0.35 | OG/ BN | 238 | VII | — |
| 7 | 0.35 | BK/ OG | 1363 | I | — | Driver Seat Belt Switch Low Reference | 7 | 0.35 | BK/ OG | 1363 | VII | — |
| 8 | — | — | — | — | — | Not Occupied | 8 | — | — | — | — | — |
| 9 | 0.35 | L-GN/ GY | 5286 | I | — | Adjustable Pedal Switch Forward Signal | 9 | — | — | — | — | — |
| 10 | 0.35 | WH/ GY | 5285 | I | — | Adjustable Pedal Switch Rearward Signal | 10 | — | — | — | — | — |
| 11 | 4 | BK | 1150 | II | — | Ground | 11 | 4 | BK | 1150 | VI | — |
| 12 | — | — | — | — | — | Not Occupied | 12 | — | — | — | — | — |
| 13 | 0.5 | WH/ RD | 6207 | I | — | Memory Sensor High Reference | 13 | — | — | — | — | — |
| 14 | 0.35 | L-BU | 5952 | I | — | Adjustable Pedal Position Sensor Brake Signal | 14 | — | — | — | — | — |
| 15 | 0.5 | BK/ GY | 6206 | I | — | Memory Sensor Low Reference | 15 | — | — | — | — | — |
| 16 | — | — | — | — | — | Not Occupied | 16 | — | — | — | — | — |
| 17 | 0.5 | L-GN/ WH | 7530 | I | — | Local Interconnect Network Serial Data Bus 8 | 17 | — | — | — | — | — |
| 18 | — | — | — | — | — | Not Occupied | 18 | — | — | — | — | — |
| 19 | 0.35 | L-GN/ VT | 5906 | I | — | Driver Seat Vent Motor Control 1 | 19 | — | — | — | — | — |
| 20 - 21 | — | — | — | — | — | Not Occupied | 20 - 21 | — | — | — | — | — |
| 22 | 0.75 | BN/ BK | 2078 | I | — | Driver Heated Seat Element Low Reference | 22 | 0.75 | BN/ BK | 2078 | IV | — |
| 23 | 0.75 | RD/ BN | 1140 | I | — | Battery Positive Voltage | 23 | — | — | — | — | — |
| 24 | 0.5 | L-GN/ OG | 3069 | I | — | Driver Side Impact Module Low Control | 24 | — | — | — | — | — |

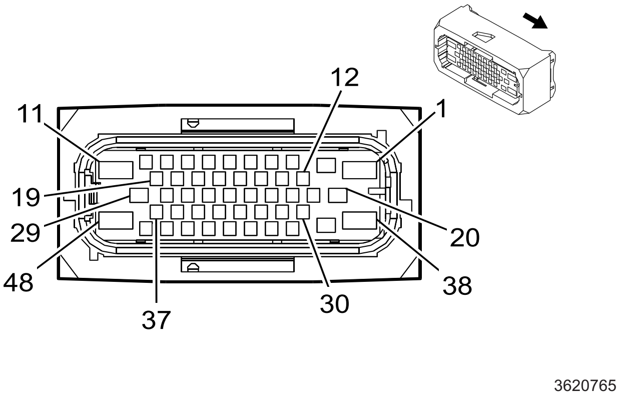
## X310 Driver Seat Cushion Harness to Body Harness ((A95/AG1)+KA1) (cont'd)

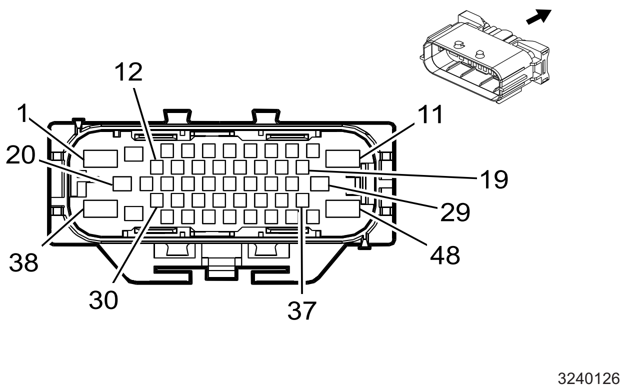
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 25 | 0.5 | YE/OG | 3482 | I | — | Driver Seat Belt Anchor Pretensioner Low Control | 25 | — | — | — | — | — |
| 26 | 0.5 | L-GN | 5060 | I | — | Low Speed GMLAN Serial Data | 26 | — | — | — | — | — |
| 27 | — | — | — | — | — | Not Occupied | 27 | — | — | — | — | — |
| 28 | 0.5 | BN/YE | 2080 | I | — | Driver Heated Seat NTC Low Reference | 28 | 0.5 | BK/YE | 2080 | IV | — |
| 29 | — | — | — | — | — | Not Occupied | 29 | — | — | — | — | — |
| 30 | 0.5 | L-BU | 2425 | I | — | Driver Heated Back NTC Signal | 30 | 0.5 | D-BU | 2425 | IV | — |
| 31 | — | — | — | — | — | Not Occupied | 31 | — | — | — | — | — |
| 32 | 0.5 | YE/GY | 2079 | I | — | Driver Heated Seat NTC Signal | 32 | 0.5 | YE/GY | 2079 | IV | — |
| 33 | 0.5 | OG/L-BU | 3068 | I | — | Driver Side Impact Module High Control | 33 | — | — | — | — | — |
| 34 | 0.5 | OG/YE | 3481 | I | — | Driver Seat Belt Anchor Pretensioner High Control | 34 | — | — | — | — | — |
| 35 | 0.35 | L-GN/L-BU | 614 | I | — | Memory Seat Switch Set Signal | 35 | — | — | — | — | — |
| 36 | 0.75 | BN | 2432 | I | — | Driver Heated Back Element Control | 36 | 0.75 | BN | 2432 | IV | — |
| 37 | 0.75 | BN/VT | 2077 | I | — | Driver Heated Seat Element Control | 37 | 0.75 | BN/VT | 2077 | IV | — |
| 38 - 39 | — | — | — | — | — | Not Occupied | 38 - 39 | — | — | — | — | — |
| 40 | 0.35 | BK/L-BU | 5978 | I | — | Memory Switch Low Reference | 40 | — | — | — | — | — |
| 41 | 0.35 | WH | 615 | I | — | Memory Seat Switch Signal 1 | 41 | — | — | — | — | — |
| 42 | — | — | — | — | — | Not Occupied | 42 | — | — | — | — | — |
| 43 | 0.5 | VT | 4106 | I | — | Center Side Impact Module Low Control | 43 | — | — | — | — | — |

## X310 Driver Seat Cushion Harness to Body Harness ((A95/AG1)+KA1) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 44 | 0.5 | BN/ WH | 4107 | I | — | Center Side Impact Module High Control | 44 | — | — | — | — | — |
| 45 | — | — | — | — | — | Not Occupied | 45 | — | — | — | — | — |
| 46 | 0.35 | GY | 157 | I | — | Interior Lamp Control | 46 | — | — | — | — | — |
| 47 - 48 | — | — | — | — | — | Not Occupied | 47 - 48 | — | — | — | — | — |

# X310 Driver Seat Cushion Harness to Body Harness ((A95/AG1)-KA1)





## Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 15509590

Service Connector: Service by Harness - See Part Catalog

Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed (YE)

## Connector Part Information

Harness Type: Body

OEM Connector: 15513436

Service Connector: 19301796

Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-40 (BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| IV | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| V | 13505807 | J-35616-3 (GY) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| VI | 13578881 | J-35616-5 (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| VII | 19329756 | J-35616-32 (OR) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| VIII | 19352419 | J-35616-3 (GY) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

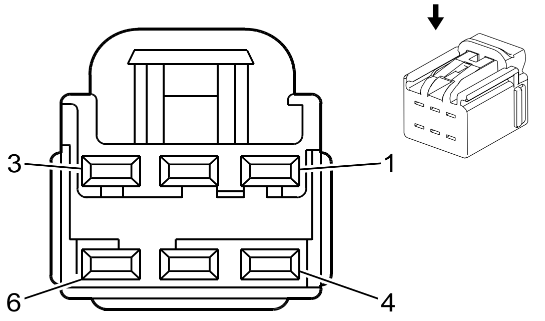
## X310 Driver Seat Cushion Harness to Body Harness ((A95/AG1)-KA1)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | — | — | — | — | — | Not Occupied | 1 | — | — | — | — | — |
| 2 | 2.5 | RD/YE | 5040 | III | — | Battery Positive Voltage | 2 | 2.5 | RD/YE | 5040 | VI | — |
| 3 - 5 | — | — | — | — | — | Not Occupied | 3 - 5 | — | — | — | — | — |
| 6 | 0.35 | OG/BN | 238 | I | — | Driver Seat Belt Switch Signal | 6 | 0.35 | OG/BN | 238 | VIII | — |

## X310 Driver Seat Cushion Harness to Body Harness ((A95/AG1)-KA1) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 0.35 | BK/ OG | 1363 | I | — | Driver Seat Belt Switch Low Reference | 7 | 0.35 | BK/ OG | 1363 | VIII | — |
| 8 - 10 | — | — | — | — | — | Not Occupied | 8 - 10 | — | — | — | — | — |
| 11 | 4<br>2.5 | BK<br>BK | 1150<br>1150 | IV<br>II | AG1/KA1<br>AG1-KA1 | Ground<br>Ground | 11 | 4 | BK | 1150 | VII | — |
| 12 - 21 | — | — | — | — | — | Not Occupied | 12 - 21 | — | — | — | — | — |
| 22 | — | — | — | — | — | Driver Heated Seat Element Low Reference | 22 | 0.75 | BN/ BK | 2078 | V | — |
| 23 - 27 | — | — | — | — | — | Not Occupied | 23 - 27 | — | — | — | — | — |
| 28 | — | — | — | — | — | Driver Heated Seat NTC Low Reference | 28 | 0.5 | BK/ YE | 2080 | V | — |
| 29 | — | — | — | — | — | Not Occupied | 29 | — | — | — | — | — |
| 30 | — | — | — | — | — | Driver Heated Back NTC Signal | 30 | 0.5 | D-BU | 2425 | V | — |
| 31 | — | — | — | — | — | Not Occupied | 31 | — | — | — | — | — |
| 32 | — | — | — | — | — | Driver Heated Seat NTC Signal | 32 | 0.5 | YE/ GY | 2079 | V | — |
| 33 - 35 | — | — | — | — | — | Not Occupied | 33 - 35 | — | — | — | — | — |
| 36 | — | — | — | — | — | Driver Heated Back Element Control | 36 | 0.75 | BN | 2432 | V | — |
| 37 | — | — | — | — | — | Driver Heated Seat Element Control | 37 | 0.75 | BN/ VT | 2077 | V | — |
| 38 - 48 | — | — | — | — | — | Not Occupied | 38 - 48 | — | — | — | — | — |

# X311 Driver Seat Back Harness to Driver Seat Cushion Harness (A95/AG1)



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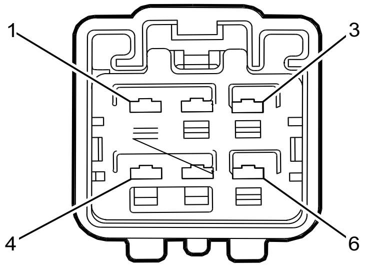


1849802

### Connector Part Information

Harness Type: Driver Seat Back
OEM Connector: 7283-6466-40
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F YESC Kaizen Series (L-GY)

### Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 7282-6466-40
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M YESC Kaizen Series (L-GY)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-5 (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

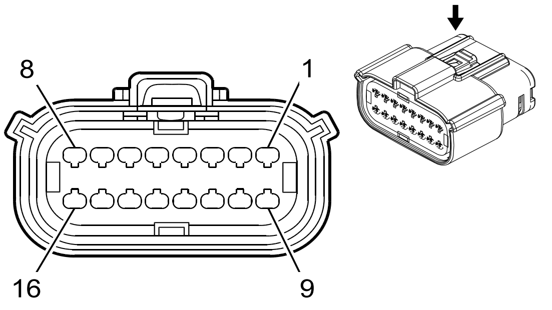
## X311 Driver Seat Back Harness to Driver Seat Cushion Harness (A95/AG1)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35<br>0.75 | WH/BK<br>YE/L-BU | 570<br>767 | I<br>I | —<br>— | Driver Memory Seat Recline Motor Position Sensor Signal<br>Driver Power Seat Lumbar Motor Down Control | 1 | 1.5 | YE/L-BU | 767 | II | — |
| 2 | 0.35<br>0.75 | WH/RD<br>YE/BN | 3298<br>768 | I<br>I | —<br>— | Memory Sensor High Reference 2<br>Driver Power Seat Lumbar Motor Up Control | 2 | 1.5 | YE/BN | 768 | II | — |
| 3 | 0.75<br>1.5 | L-BU<br>L-BU | 611<br>611 | I<br>I | —<br>— | Driver Power Seat Lumbar Motor Forward Control<br>Driver Power Seat Lumbar Motor Forward Control | 3 | 1.5 | L-BU | 611 | II | — |

## X311 Driver Seat Back Harness to Driver Seat Cushion Harness (A95/AG1) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.75<br>1.5 | VT<br>VT | 610<br>610 | I<br>I | —<br>— | Driver Power Seat Lumbar Motor Rearward Control<br>Driver Power Seat Lumbar Motor Rearward Control | 4 | 1.5 | VT | 610 | II | — |
| 5 | 1.5 | L-GN/YE | 276 | I | — | Driver Power Seat Recline Motor Forward Control | 5 | 1.5 | L-GN/YE | 276 | II | — |
| 6 | 1.5 | L-BU/YE | 277 | I | — | Driver Power Seat Recline Motor Rearward Control | 6 | 1.5 | L-BU/YE | 277 | II | — |

# X312 Driver Seat Back Harness to Driver Seat Cushion Harness (KA1)



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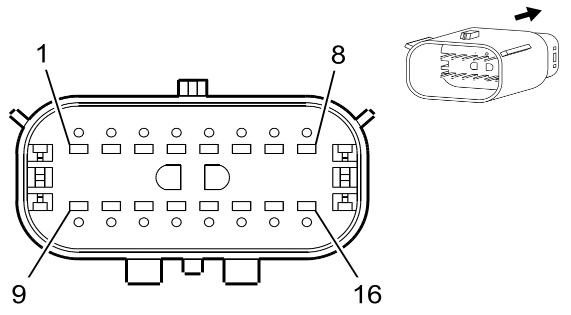


2548390

## Connector Part Information

Harness Type: Driver Seat Back
OEM Connector: 33472-1886
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 150 MX Series, Sealed (YE)

## Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 33482-1777
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M 150 MX Series, Sealed (YE)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

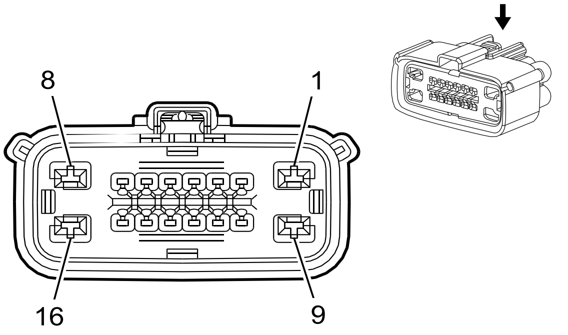
## X312 Driver Seat Back Harness to Driver Seat Cushion Harness (KA1)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.5 | OG/ L-BU | 3068 | I | — | Driver Side Impact Module High Control | 1 | 0.5 | OG/ L-BU | 3068 | III | — |
| 2 | 0.5 | L-GN/ OG | 3069 | I | — | Driver Side Impact Module Low Control | 2 | 0.5 | L-GN/ OG | 3069 | III | — |
| 3 | 0.5 | VT | 4106 | I | — | Center Side Impact Module Low Control | 3 | 0.5 | VT | 4106 | III | — |
| 4 | 0.5 | BN/ WH | 4107 | I | — | Center Side Impact Module High Control | 4 | 0.5 | BN/ WH | 4107 | III | — |
| 5 | 0.75 | BK | 1150 | II | — | Ground | 5 | 0.75 | BK | 1150 | III | — |
| 6 | 0.75 | BN | 2432 | II | — | Driver Heated Back Element Control | 6 | 0.75 | BN | 2432 | III | — |

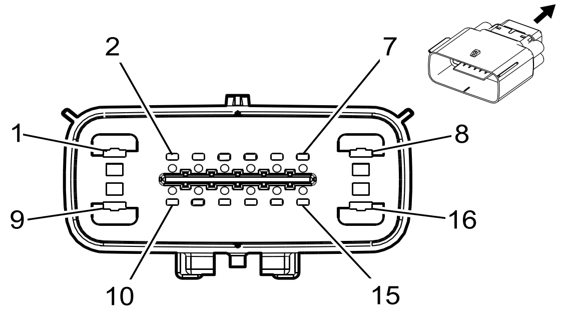
## X312 Driver Seat Back Harness to Driver Seat Cushion Harness (KA1) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 0.35 | L-GN/VT | 5906 | II | — | Driver Seat Vent Motor Control 1 | 7 | 0.35 | L-GN/VT | 5906 | III | — |
| 8 | 0.5 | BK/YE | 2080 | II | — | Driver Heated Seat NTC Low Reference | 8 | 0.5 | BN/YE | 2080 | III | — |
| 9 | 0.75 | BN/BK | 2078 | II | — | Driver Heated Seat Element Low Reference | 9 | 0.75 | BN/BK | 2078 | III | — |
| 10 | 0.5 | L-BU | 2425 | II | — | Driver Heated Back NTC Signal | 10 | 0.5 | L-BU | 2425 | III | — |
| 11 | 0.75 | RD/L-GN | 5140 | II | — | Battery Positive Voltage | 11 | 0.75 | RD/L-GN | 5140 | III | — |
| 12 | 0.35 | WH/BK | 570 | II | — | Driver Memory Seat Recline Motor Position Sensor Signal | 12 | 0.5 | WH/BK | 570 | III | — |
| 13 | 0.35 | WH/RD | 3298 | II | — | Memory Sensor High Reference 2 | 13 | 0.35 | WH/RD | 3298 | III | — |
| 14 - 16 | — | — | — | — | — | Not Occupied | 14 - 16 | — | — | — | — | — |

# X314 Center Seat Harness to Body Harness (-D07)



3684497



2373686

## Connector Part Information

Harness Type: Center Seat
OEM Connector: 34985-1606
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.5, 2.8 Series, Sealed (BK)

## Connector Part Information

Harness Type: Body
OEM Connector: 33129084
Service Connector: 19331031
Description: 16-Way M 1.5, 2.8 Series, Sealed (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | 13584530 | J-35616-5 (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| IV | 19119395 | J-35616-3 (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| V | 19119440 | J-35616-3 (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |

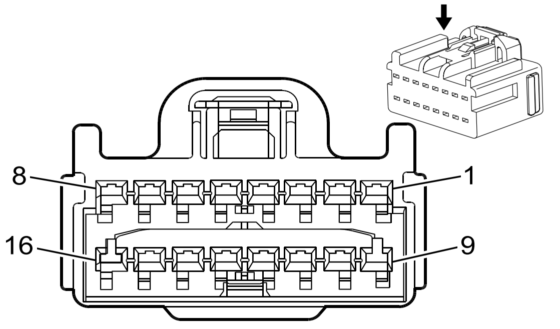
## X314 Center Seat Harness to Body Harness (-D07)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | VT/YE | 143 | II | — | Accessory Ignition Voltage | 1 | 1.5 | VT/YE | 143 | III | — |
| 2 | — | — | — | — | — | Not Occupied | 2 | — | — | — | — | — |
| 3 | 0.35 | BK | 5842 | I | — | Auxiliary Audio Screen 2 | 3 | 0.5 | BK | 5842 | IV | — |
| 4 | 0.35 | GY | 5839 | I | — | Left Auxiliary Audio Signal 2 | 4 | 0.5 | GY | 5839 | IV | — |
| 5 | 0.35 | L-BU | 2060 | I | — | Auxiliary Detection Signal | 5 | 0.5 | D-BU | 2060 | IV | — |
| 6 | 0.35 | BK | 2550 | I | — | Ground | 6 | 0.75 | BK | 2550 | V | — |
| 7 | — | — | — | — | — | Not Occupied | 7 | — | — | — | — | — |
| 8 | 1.5 | BK | 1250 | II | — | Ground | 8 | 1.5 | BK | 1250 | III | — |

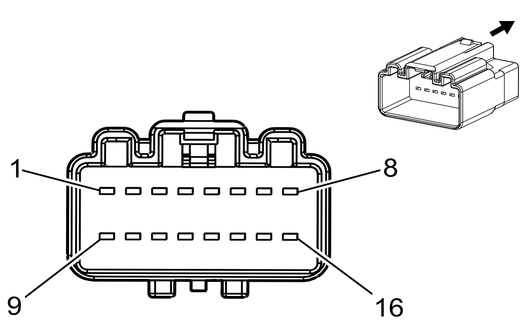
## X314 Center Seat Harness to Body Harness (-D07) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 1.5 | VT/ YE | 243 | II | — | Accessory Ignition Voltage | 9 | 1.5 | VT/ YE | 243 | III | — |
| 10 | — | — | — | — | — | Not Occupied | 10 | — | — | — | — | — |
| 11 | 0.35 | L-GN | 5841 | I | — | Right Auxiliary Audio Signal 2 | 11 | 0.5 | L-GN | 5841 | IV | — |
| 12 | 0.35 | VT | 5843 | I | — | Auxiliary Audio Common Signal | 12 | 0.5 | VT | 5843 | IV | — |
| 13 | — | — | — | — | — | Not Occupied | 13 | — | — | — | — | — |
| 14 | 0.75 | RD/ VT | 340 | I | — | Battery Positive Voltage | 14 | 0.75 | RD/ VT | 340 | V | — |
| 15 | — | — | — | — | — | Not Occupied | 15 | — | — | — | — | — |
| 16 | 1.5 | BK | 1250 | II | — | Ground | 16 | 1.5 | BK | 1250 | III | — |

# X315 Body Harness to Brake Clutch Harness



1592558



1483278

### Connector Part Information

Harness Type: Body
OEM Connector: 10847013
Service Connector: 89047090
Description: 16-Way F 1.5 Kaizen Series (GN)

### Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 13507433
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M 1.5 Kaizen Series (GN)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13578813 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| II | 13578891 | J-35616-2A (GY) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| III | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

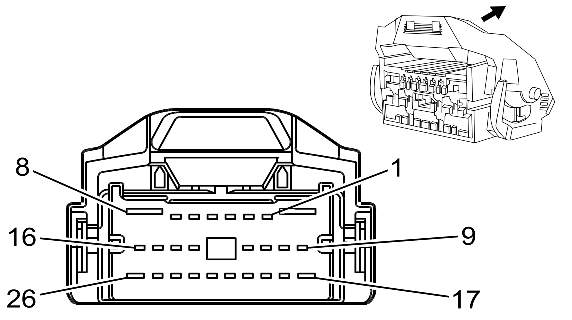
## X315 Body Harness to Brake Clutch Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | BK/D-BU | 1271 | I | — | Accelerator Pedal Position Low Reference 1 | 1 | 0.35 | BK/D-BU | 1271 | III | — |
| 2 | 0.35 | YE/WH | 1161 | I | — | Accelerator Pedal Position Signal 1 | 2 | 0.35 | YE/WH | 1161 | III | — |
| 3 | 0.35 | WH/RD | 1164 | I | — | Accelerator Pedal Position 5V Reference 1 | 3 | 0.35 | WH/RD | 1164 | III | — |
| 4 | 0.35 | BK/VT | 1272 | I | — | Accelerator Pedal Position Low Reference 2 | 4 | 0.35 | BK/VT | 1272 | III | — |
| 5 | 0.35 | L-GN/WH | 1162 | I | — | Accelerator Pedal Position Signal 2 | 5 | 0.35 | L-GN/WH | 1162 | III | — |
| 6 | 0.35 | BN/RD | 1274 | I | — | Accelerator Pedal Position 5V Reference 2 | 6 | 0.35 | BN/RD | 1274 | III | — |

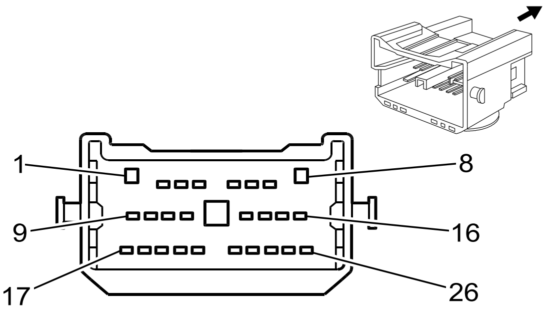
## X315 Body Harness to Brake Clutch Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 0.35 | WH | 5359 | II | — | Brake Apply Sensor Control | 7 | 0.5 | WH | 5359 | III | — |
| 8 | 0.35 | BK/BN | 5360 | II | — | Brake Apply Sensor Low Reference | 8 | 0.5 | BK/BN | 5360 | III | — |
| 9 | 0.35 | D-BU/YE | 5361 | II | — | Brake Apply Sensor Signal | 9 | 0.5 | D-BU/YE | 5361 | III | — |
| 10 | — | — | — | — | — | Rotary Position Sensor Low Reference | 10 | 0.5 | YE/BK | 7478 | III | — |
| 11 | — | — | — | — | — | Rotary Position Sensor 5V Reference | 11 | 0.5 | WH/RD | 7477 | III | — |
| 12 | — | — | — | — | — | Rotary Position Sensor Signal | 12 | 0.5 | WH/L-GN | 7479 | III | — |
| 13 - 16 | — | — | — | — | — | Not Occupied | 13 - 16 | — | — | — | — | — |

# X316 Headliner Harness to Overhead Console Harness



823264



823289

### Connector Part Information

Harness Type: Headliner
OEM Connector: 15518265
Service Connector: 13587877
Description: 26-Way F 1.5, 2.8, 6.3 Series (BK)

### Connector Part Information

Harness Type: Overhead Console
OEM Connector: 13536441
Service Connector: Service by Harness - See Part Catalog
Description: 26-Way M 1.5, 2.8, 6.3 YESC Series (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575708 | J-35616-2A (GY) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| II | 13578891 | J-35616-2A (GY) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| III | 13582322 | J-35616-4A (PU) | J-38125-11A | 7116-4110-02 | Yazaki 9 | E | C |
| IV | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| V | Not Required | J-35616-5 (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

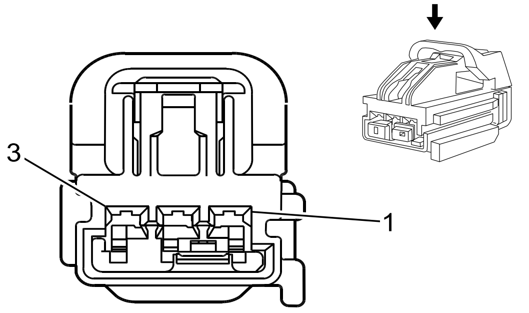
## X316 Headliner Harness to Overhead Console Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 - 2 | — | — | — | — | — | Not Occupied | 1 - 2 | — | — | — | — | — |
| 3 | 0.35 | VT/YE | 43 | II | — | Accessory Ignition Voltage | 3 | 0.35 | VT/YE | 43 | IV | — |
| 4 | 0.5 | BK | 1050 | I | — | Ground | 4 | 0.5 | BK | 1050 | IV | — |
| 5 | 0.35 | GY/L-GN | 328 | II | — | Interior Lamp Defeat Switch Signal | 5 | 0.35 | GY/L-GN | 328 | IV | — |
| 6 | 0.35 | GY/D-BU | 156 | II | — | Courtesy Lamp Switch Signal | 6 | 0.35 | GY | 156 | IV | — |
| 7 | 0.5 | WH/BN | 6815 | I | — | Inadvertent Power Control | 7 | 0.5 | WH/BN | 6815 | IV | — |
| 8 | — | — | — | — | — | Not Occupied | 8 | — | — | — | — | — |

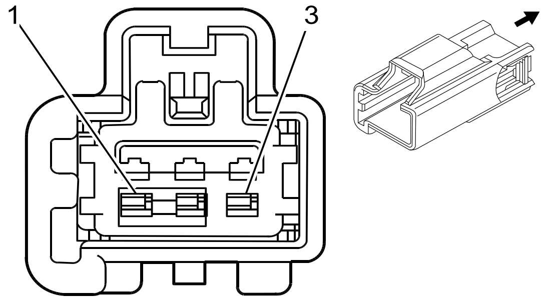
## X316 Headliner Harness to Overhead Console Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 0.35 | VT/L-GN | 7558 | II | — | LED Ambient Lighting Control 2 | 9 | 0.35 | VT/L-GN | 7558 | IV | — |
| 10 | 0.5 | YE | 6817 | I | — | LED Backlight Dimming Control | 10 | 0.5 | YE | 6817 | IV | — |
| 11 | 0.35 | VT/BK | 1139 | II | — | Run/Crank Ignition 1 Voltage | 11 | 0.35 | VT/WH | 1139 | IV | — |
| 12 | 0.35 | VT/WH | 5234 | II | — | Passenger Seat Belt Indicator Control | 12 | 0.35 | VT/WH | 5234 | IV | — |
| 13 | 0.35 | D-BU | 2307 | II | — | Passenger Air Bag On Indicator Control | 13 | 0.35 | D-BU | 2307 | IV | — |
| 14 | 0.35 | L-GN/RD | 2308 | II | — | Passenger Air Bag Off Indicator Control | 14 | 0.35 | L-GN | 2308 | IV | — |
| 15 - 16 | — | — | — | — | — | Not Occupied | 15 - 16 | — | — | — | — | — |
| 17 | 0.5 | RD/YE | 240 | III | — | Battery Positive Voltage | 17 | 0.5 | RD/YE | 240 | V | — |
| 18 | — | — | — | — | — | Not Occupied | 18 | — | — | — | — | — |
| 19 | 0.35 | YE/VT | 6191 | II | — | Power Sliding Window Switch Open Signal | 19 | 0.35 | YE/VT | 6191 | IV | — |
| 20 | 0.35 | WH | 6192 | II | — | Power Sliding Window Switch Close Signal | 20 | 0.35 | WH | 6192 | IV | — |
| 21 | 0.5 | GY | 157 | I | — | Interior Lamp Control | 21 | 0.5 | GY | 157 | IV | — |
| 22 | — | — | — | — | — | Not Occupied | 22 | — | — | — | — | — |
| 23 | 0.35 | VT/YE | 43 | II | — | Accessory Ignition Voltage | 23 | 0.35 | VT/YE | 43 | IV | — |
| 24 - 26 | — | — | — | — | — | Not Occupied | 24 - 26 | — | — | — | — | — |

# X317 Headliner Harness to Center High Mounted Stop Lamp Harness



1787799



1787800

## Connector Part Information

Harness Type: Headliner
OEM Connector: 10847008
Service Connector: 19149536
Description: 3-Way F 1.5 Kaizen Series (L-GY)

## Connector Part Information

Harness Type: Center High Mounted Stop Lamp
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way M

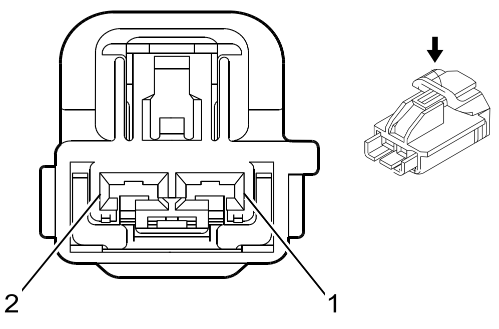
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

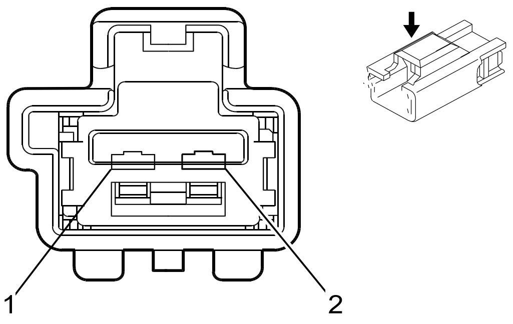
## X317 Headliner Harness to Center High Mounted Stop Lamp Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.75 | WH/ VT | 1430 | I | — | Exterior Courtesy Lamp Control | 1 | 0.75 | WH/ VT | 1430 | II | — |
| 2 | 0.5 | VT/ GY | 1054 | I | — | Stop Lamp Control | 2 | 0.5 | VT/ GY | 1054 | II | — |
| 3 | 0.5 | BK | 1050 | I | — | Ground | 3 | 0.5 | BK | 1050 | II | — |

# X319 Overhead Console Harness to Right A-Pillar Harness (TRW)



1803142



1803144

## Connector Part Information

Harness Type: Overhead Console
OEM Connector: 10846819
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F YESC Kaizen Series (L-GY)

## Connector Part Information

Harness Type: Right A-Pillar
OEM Connector: 10846812
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M YESC Kaizen Series (L-GY)

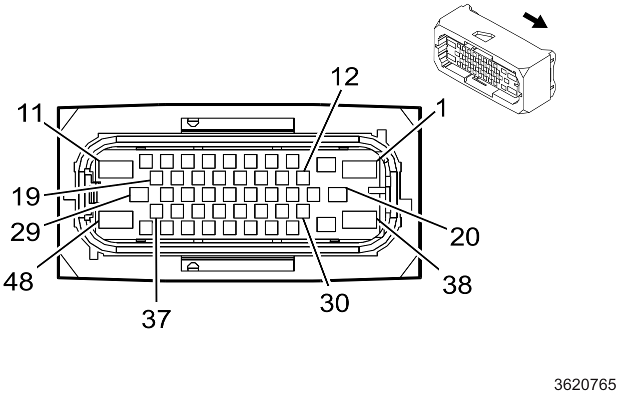
## Terminal Part Information

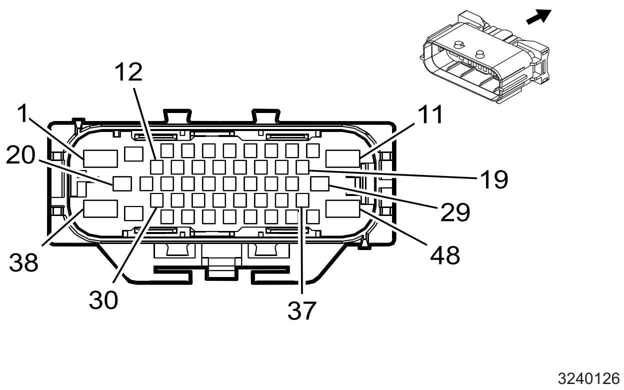
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-5 (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X319 Overhead Console Harness to Right A-Pillar Harness (TRW)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.5 | RD/L-GN | 3140 | I | — | Battery Positive Voltage | 1 | 2.5 | RD/L-GN | 3140 | II | — |
| 2 | 2.5 | BK | 1050 | I | — | Ground | 2 | 2.5 | BK | 1050 | II | — |

# X320 Passenger Seat Cushion Harness to Body Harness (A95/KA1)





## Connector Part Information

Harness Type: Passenger Seat Cushion

OEM Connector: 15509588

Service Connector: Service by Harness - See Part Catalog

Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed (YE)

## Connector Part Information

Harness Type: Body

OEM Connector: 15513436

Service Connector: 19301796

Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-40 (BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| IV | 13505807 | J-35616-3 (GY) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| V | 13578881 | J-35616-5 (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| VI | 19329756 | J-35616-32 (OR) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |

## X320 Passenger Seat Cushion Harness to Body Harness (A95/KA1)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | — | — | — | — | — | Not Occupied | 1 | — | — | — | — | — |
| 2 | 2.5 | RD/BN | 1440 | III | — | Battery Positive Voltage | 2 | 2.5 | RD/YE | 1440 | V | — |
| 3 - 5 | — | — | — | — | — | Not Occupied | 3 - 5 | — | — | — | — | — |
| 6 | 0.35 | OG/VT | 1362 | I | — | Passenger Seat Belt Switch Signal | 6 | — | — | — | — | — |
| 7 | 0.35 | BK/OG | 1361 | I | — | Passenger Seat Belt Switch Low Reference | 7 | — | — | — | — | — |

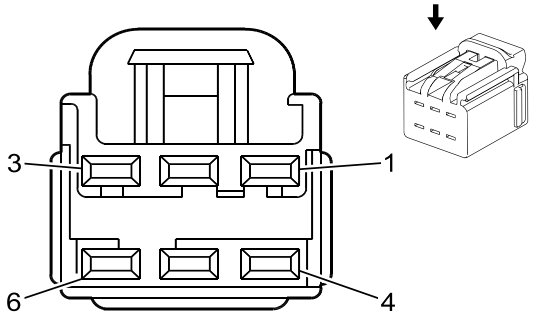
## X320 Passenger Seat Cushion Harness to Body Harness (A95/KA1) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 0.75 | BN/VT | 2077 | I | — | Driver Heated Seat Element Control | 8 | 0.75 | BN/VT | 2077 | IV | — |
| 9 | 0.75 | BN | 2432 | I | — | Driver Heated Back Element Control | 9 | 0.75 | BN | 2432 | IV | — |
| 10 | — | — | — | — | — | Not Occupied | 10 | — | — | — | — | — |
| 11 | 4 | BK | 1250 | II | — | Ground<br>Ground | 11 | 1<br>4 | BK<br>BK | 1250<br>1250 | VI<br>VI | AZ3<br>AG2 |
| 12 - 13 | — | — | — | — | — | Not Occupied | 12 - 13 | — | — | — | — | — |
| 14 | 0.35 | L-BU/RD | 5612 | I | — | Passenger Seat Belt Tension Sensor 5V Reference | 14 | — | — | — | — | — |
| 15 | 0.35 | VT/OG | 5611 | I | — | Passenger Seat Belt Tension Sensor Signal | 15 | — | — | — | — | — |
| 16 | — | — | — | — | — | Not Occupied | 16 | — | — | — | — | — |
| 17 | 0.75 | RD/L-GN | 6140 | I | — | Battery Positive Voltage | 17 | 0.75 | RD/L-GN | 6140 | IV | — |
| 18 - 21 | — | — | — | — | — | Not Occupied | 18 - 21 | — | — | — | — | — |
| 22 | 0.75 | BN/BK | 2078 | I | — | Driver Heated Seat Element Low Reference | 22 | 0.75 | BN/BK | 2078 | IV | — |
| 23 | — | — | — | — | — | Not Occupied | 23 | — | — | — | — | — |
| 24 | 0.5 | BN/OG | 3067 | I | — | Passenger Side Impact Module Low Control | 24 | — | — | — | — | — |
| 25 | 0.5 | GY/OG | 3480 | I | — | Passenger Seat Belt Anchor Pretensioner Low Control | 25 | — | — | — | — | — |
| 26 | 0.35 | L-GN | 5060 | I | — | Low Speed GMLAN Serial Data | 26 | — | — | — | — | — |
| 27 | 0.35 | L-GN/L-BU | 6133 | I | — | Local Interconnect Network Serial Data Bus 2 | 27 | 0.5 | L-GN/D-BU | 6133 | IV | — |
| 28 | 0.5 | BK/YE | 2080 | I | — | Driver Heated Seat NTC Low Reference | 28 | 0.5 | BK/YE | 2080 | IV | — |
| 29 | — | — | — | — | — | Not Occupied | 29 | — | — | — | — | — |

## X320 Passenger Seat Cushion Harness to Body Harness (A95/KA1) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | 0.5 | L-BU | 2425 | I | — | Driver Heated Back NTC Signal | 30 | 0.5 | D-BU | 2425 | IV | — |
| 31 | — | — | — | — | — | Not Occupied | 31 | — | — | — | — | — |
| 32 | 0.5 | YE/GY | 2079 | I | — | Driver Heated Seat NTC Signal | 32 | 0.5 | YE/GY | 2079 | IV | — |
| 33 | 0.5 | OG/GY | 3066 | I | — | Passenger Side Impact Module High Control | 33 | — | — | — | — | — |
| 34 | 0.5 | OG/BN | 3479 | I | — | Passenger Seat Belt Anchor Pretensioner High Control | 34 | — | — | — | — | — |
| 35 | 0.35 | RD/L-GN | 4440 | I | — | Battery Positive Voltage | 35 | — | — | — | — | — |
| 36 | 0.35 | BK/WH | 2751 | I | — | Signal Ground | 36 | — | — | — | — | — |
| 37 - 46 | — | — | — | — | — | Not Occupied | 37 - 46 | — | — | — | — | — |
| 47 | 0.75 | RD/L-GN | 5140 | I | — | Battery Positive Voltage | 47 | 0.75 | RD/L-GN | 5140 | IV | — |
| 48 | — | — | — | — | — | Not Occupied | 48 | — | — | — | — | — |

# X321 Passenger Seat Back Harness to Passenger Seat Cushion Harness (A95)



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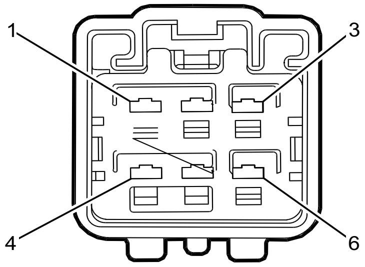


1849802

## Connector Part Information

Harness Type: Passenger Seat Back
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

## Connector Part Information

Harness Type: Passenger Seat Cushion
OEM Connector: 7282-6466-40
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M YESC Kaizen Series (L-GY)

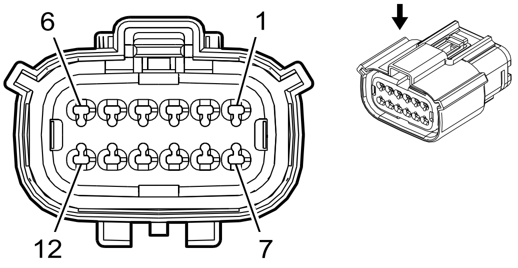
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-5 (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

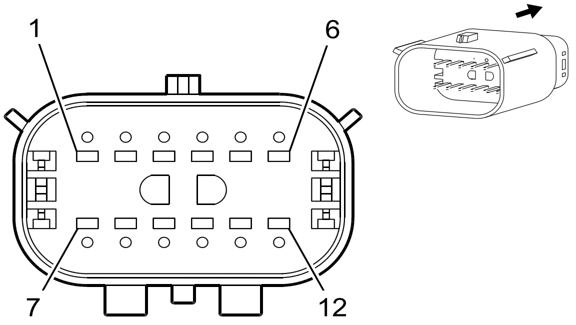
## X321 Passenger Seat Back Harness to Passenger Seat Cushion Harness (A95)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 - 2 | — | — | — | — | — | Not Occupied | 1 - 2 | — | — | — | — | — |
| 3 | 1.5 | L-BU | 211 | I | — | Passenger Power Seat Lumbar Motor Forward Control | 3 | 1.5 | L-BU | 211 | II | — |
| 4 | 1.5 | VT | 210 | I | — | Passenger Power Seat Lumbar Motor Rearward Control | 4 | 1.5 | VT | 210 | II | — |
| 5 | 1.5 | L-GN | 76 | I | — | Passenger Power Seat Recline Motor Forward Control | 5 | 1.5 | L-GN | 76 | II | — |
| 6 | 1.5 | L-BU/BN | 77 | I | — | Passenger Power Seat Recline Motor Rearward Control | 6 | 1.5 | L-BU/BN | 77 | II | — |

# X322 Passenger Seat Back Harness to Passenger Seat Cushion Harness (KA1)



2424960



1825167

## Connector Part Information

- Harness Type: Passenger Seat Back
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way F

## Connector Part Information

- Harness Type: Passenger Seat Cushion
- OEM Connector: 33482-1336
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way M 150 MX Series, Sealed (YE)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

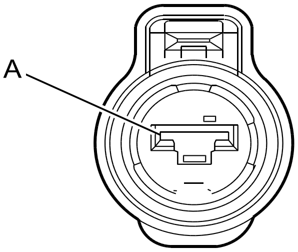
## X322 Passenger Seat Back Harness to Passenger Seat Cushion Harness (KA1)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.5 | OG/GY | 3066 | I | — | Passenger Side Impact Module High Control | 1 | 0.5 | OG/GY | 3066 | II | — |
| 2 | 0.5 | BN/OG | 3067 | I | — | Passenger Side Impact Module Low Control | 2 | 0.5 | BN/OG | 3067 | II | — |
| 3 | 0.75 | BK | 1250 | I | — | Ground | 3 | 0.75 | BK | 1250 | II | — |
| 4 | 0.75 | WH/BN | 2481 | I | — | Passenger Heated Back Element Control | 4 | 0.75 | WH/BN | 2481 | II | — |
| 5 | — | — | — | — | — | Not Occupied | 5 | — | — | — | — | — |
| 6 | 0.5 | BK/L-GN | 2482 | I | — | Passenger Heated Back NTC Low Reference | 6 | 0.5 | BK/L-GN | 2482 | II | — |
| 7 | 0.75 | GY/BK | 2480 | I | — | Passenger Heated Seat Element Low Reference | 7 | 0.75 | GY/BK | 2480 | II | — |

## X322 Passenger Seat Back Harness to Passenger Seat Cushion Harness (KA1) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 0.5 | WH/ L-BU | 2436 | I | — | Passenger Heated Back NTC Signal | 8 | 0.5 | WH/ L-BU | 2436 | II | — |
| 9 - 12 | — | — | — | — | — | Not Occupied | 9 - 12 | — | — | — | — | — |

# X330 Chassis Harness to Battery Feed Harness (7Y7/7Y8)



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4976432

### Connector Part Information

Harness Type: Chassis
OEM Connector: 3537133C1
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 312 Series (GY)

### Connector Part Information

Harness Type: Battery Feed
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way M

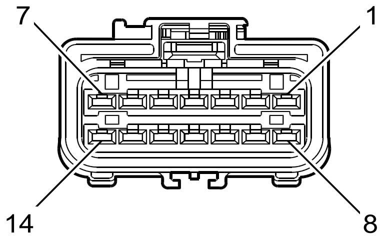
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X330 Chassis Harness to Battery Feed Harness (7Y7/7Y8)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 6 | RD | 90 | I | — | Right Mirror Motor Left Control | A | 6 | RD | 90 | II | — |

## X401 Chassis Rear Left Harness to Chassis Harness



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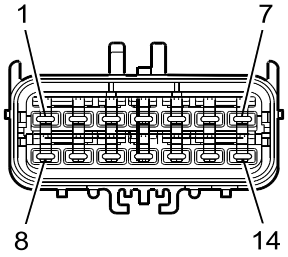


4976624

### Connector Part Information

Harness Type: Chassis Rear Left
OEM Connector: 3573078C1
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way F 2.8 APEX Series, Sealed (BK)

### Connector Part Information

Harness Type: Chassis
OEM Connector: 3618231C1
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way M 2.8 APEX Series, Sealed (BK)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | No Tool Required | No Tool Required | Not Available | Not Available | Not Available | Not Available |

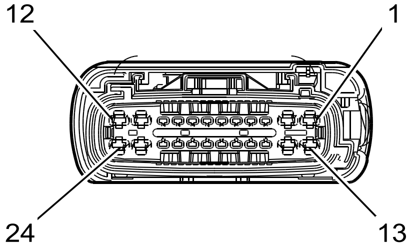
### X401 Chassis Rear Left Harness to Chassis Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | GN/WH | 24 | I | — | Backup Lamp Control | 1 | 2 | GN/WH | 24 | II | — |
| 2 | 2 | YE/BU | 18 | I | — | Left Rear Stop/Turn Lamp Control | 2 | 1 | YE/BU | 18 | II | — |
| 3 | 2 | VT/GY | 709 | I | — | Left Park Lamp Control | 3 | 2 | VT/GY | 709 | II | — |
| 4 | 1 | GY/BK | 7127 | I | — | Wheel Speed Sensor Control Left Rear | 4 | 0.75 | GY/BK | 7127 | II | — |
| 5 | 1 | BU | 884 | I | — | Wheel Speed Sensor Signal Left Rear | 5 | 0.75 | BU | 884 | II | — |
| 6 | 2.5 | RD/VT | 1242 | I | — | Battery Positive Voltage | 6 | 2 | RD/YE | 1242 | II | — |
| 7 | 2.5 | WH/GN | 1624 | I | — | Trailer Backup Lamp Control | 7 | 2 | WH/GN | 1624 | II | — |
| 8 | 2.5 | BU | 47 | I | — | Trailer Auxiliary Control<br>Trailer Auxiliary Control | 8 | 1.5<br>3 | BU<br>BU | 47<br>47 | II<br>II | —<br>— |

## X401 Chassis Rear Left Harness to Chassis Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 2.5 | GN/BN | 319 | I | — | Right Rear Trailer Stop/Turn Lamp Control | 9 | 2 | GN/BN | 319 | II | — |
| 10 | 2.5 | GY/BN | 2109 | I | — | Trailer Park Lamp Control | 10 | 5 | GY/BN | 2109 | II | — |
| 11 | 2.5 | YE/BU | 318 | I | — | Left Rear Trailer Stop/Turn Lamp Control | 11 | 1.5 | YE/BU | 318 | II | — |
| 12 - 14 | — | — | — | — | — | Not Occupied | 12 - 14 | — | — | — | — | — |

# X402 Chassis Rear Right Harness to Chassis Harness



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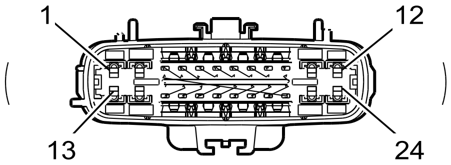


4977715

## Connector Part Information

Harness Type: Chassis Rear Right
OEM Connector: 3857801C1
Service Connector: Service by Harness - See Part Catalog
Description: 24-Way F 1.5, 2.8 APEX Series, Sealed (BK)

## Connector Part Information

Harness Type: Chassis
OEM Connector: 3920649C1
Service Connector: Service by Harness - See Part Catalog
Description: 24-Way M 1.5, 2.8 APEX Series, Sealed (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | No Tool Required | No Tool Required | Not Available | Not Available | Not Available | Not Available |

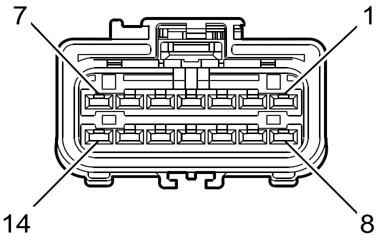
## X402 Chassis Rear Right Harness to Chassis Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | — | — | — | — | — | Not Occupied | 1 | — | — | — | — | — |
| 2 | 2 | BN/GN | 19 | I | — | Right Rear Stop/Turn Lamp Control | 2 | 1 | BN/GN | 19 | II | — |
| 3 | — | — | — | — | — | Not Occupied | 3 | — | — | — | — | — |
| 4 | 0.75 | WH/GN | 1624 | I | — | Trailer Backup Lamp Control | 4 | 1.5 | GN/WH | 24 | II | — |
| 5 | 0.75 | WH/BU | 7128 | I | — | Wheel Speed Sensor Control Right Rear | 5 | 0.75 | WH/BU | 7128 | II | — |
| 6 | 1 | VT | 882 | I | — | Wheel Speed Sensor Signal Right Rear | 6 | 0.75 | VT | 882 | II | — |
| 7 | — | — | — | — | — | Not Occupied | 7 | — | — | — | — | — |
| 8 | 0.5<br>0.5 | BU/VT<br>BU/WH | 1589<br>1937 | I<br>I | —<br>— | Primary Fuel Level Sensor Signal | 8 | 0.5<br>0.5 | VT<br>BU | 1589<br>1937 | II<br>II | —<br>— |

## X402 Chassis Rear Right Harness to Chassis Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Secondary Fuel Level Sensor Signal | | | | | | |
| 9 | 0.5 | BK/ GN | 6281 | I | — | Fuel Level Sensor Low Reference<br>Fuel Level Sensor Low Reference | 9 | 0.5<br>0.5 | BN/ WH<br>BK/ GN | 6281<br>6281 | II<br>II | —<br>— |
| 10 | 0.75 | WH/ VT | 1430 | I | — | Exterior Courtesy Lamp Control | 10 | 0.75 | GN/ VT | 1430 | II | — |
| 11 | 1.5 | GY | 120 | I | — | Fuel Pump Control | 11 | 1.5 | GY | 120 | II | — |
| 12 | 1.5 | YE/ GY | 4137 | I | — | Fuel Pump Supply Voltage Phase 2 | 12 | 1.5 | YE/ GY | 4137 | II | — |
| 13 | 1.5 | WH/ BN | 4138 | I | — | Fuel Pump Supply Voltage Phase 3 | 13 | 1.5 | WH/ BN | 4138 | II | — |
| 14 | 2 | GN/ WH | 24 | I | — | Backup Lamp Control | 14 | 2 | GN/ WH | 24 | II | — |
| 15 | 0.75 | GY/ YE | 6972 | I | — | Camera Signal 2 + | 15 | 0.75 | GY/ YE | 6972 | II | — |
| 16 | 0.5 | BK | 6974 | I | — | Camera Low Reference | 16 | 0.75 | WH | 6974 | II | — |
| 17 | 0.75 | WH/ BU | 6973 | I | — | Camera Signal 2 | 17 | 0.75 | WH/ BU | 6973 | II | — |
| 18 | 0.75 | VT/ GN | 1739 | I | — | Run/Crank Ignition 1 Voltage | 18 | 0.5 | PK | 1739 | II | — |
| 19 | 0.5 | BK | 7444 | I | — | Fuel System Control Module Shield Ground | 19 | 0.5 | BK | 7444 | II | — |
| 20 | — | — | — | — | — | Ground | 20 | 0.5 | BK | 2550 | II | — |
| 21 - 22 | — | — | — | — | — | Not Occupied | 21 - 22 | — | — | — | — | — |
| 23 | 2 | GY/ BN | 309 | I | — | Right Park Lamp Control | 23 | 2 | GY/ BN | 309 | II | — |
| 24 | 1.5 | BK | 2150 | I | — | Ground | 24 | 2 | BK | 2150 | II | — |

# X405 Chassis Harness to Body Builder Connection Harness (5DX)



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4977613

## Connector Part Information

Harness Type: Chassis
OEM Connector: 3573078C1
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way F 2.8 APEX Series, Sealed (BK)

## Connector Part Information

Harness Type: Body Builder Connection
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way M

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Available | Not Available | Not Available | Not Available |
| II | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

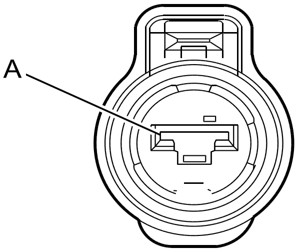
## X405 Chassis Harness to Body Builder Connection Harness (5DX)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | — | — | — | — | — | Not Occupied | 1 | — | — | — | — | — |
| 2 | 2 | GN/WH | 24 | I | — | Backup Lamp Control | 2 | 2 | GN/WH | 24 | II | — |
| 3 | 2 | YE/BN | 618 | I | — | Left Rear Turn Signal Lamp Control | 3 | 2 | YE/BN | 618 | II | — |
| 4 | 1 | GN/VT | 619 | I | — | Right Rear Turn Signal Lamp Control | 4 | 1 | GN/VT | 619 | II | — |
| 5 | 0.75 | VT/GY | 1054 | I | — | Stop Lamp Control | 5 | 0.75 | VT/GY | 1054 | II | — |
| 6 - 7 | — | — | — | — | — | Not Occupied | 6 - 7 | — | — | — | — | — |
| 8 | 2 | VT/GY | 709 | I | — | Left Park Lamp Control | 8 | 2 | VT/GY | 709 | II | — |
| 9 | 2 | GY/BN | 309 | I | — | Right Park Lamp Control | 9 | 2 | GY/BN | 309 | II | — |
| 10 - 11 | — | — | — | — | — | Not Occupied | 10 - 11 | — | — | — | — | — |

## X405 Chassis Harness to Body Builder Connection Harness (5DX) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 1<br>2 | YE/BU<br>YE/BU | 18<br>18 | I<br>I | —<br>— | Left Rear Stop/Turn Lamp Control<br>Left Rear Stop/Turn Lamp Control | 12 | 1<br>2 | YE/BU<br>YE/BU | 18<br>18 | II<br>II | —<br>— |
| 13 | 1 | BN/GN | 19 | I | — | Right Rear Stop/Turn Lamp Control | 13 | 1 | BN/GN | 19 | II | — |
| 14 | 2<br>3 | RD/GN<br>RD/GN | 1142<br>1142 | I<br>I | —<br>— | Battery Positive Voltage<br>Battery Positive Voltage | 14 | 2<br>3 | RD/GN<br>RD/GN | 1142<br>1142 | II<br>II | —<br>— |

# X430 Chassis Harness to Battery Feed Harness (7Y9)



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4976432

### Connector Part Information

Harness Type: Chassis
OEM Connector: 3537133C1
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 312 Series (GY)

### Connector Part Information

Harness Type: Battery Feed
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way M

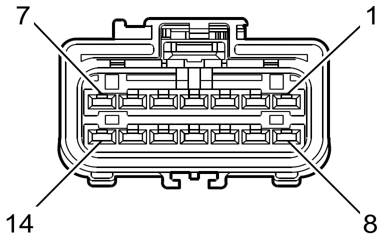
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X430 Chassis Harness to Battery Feed Harness (7Y9)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 6 | RD | 90 | I | — | Right Mirror Motor Left Control | A | 6 | RD | 90 | II | — |

# X455 Chassis Harness to Chassis Rear Right Harness (5DY)



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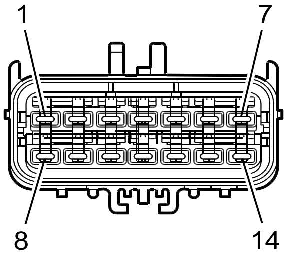


4976624

## Connector Part Information

Harness Type: Chassis
OEM Connector: 3573078C1
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way F 2.8 APEX Series, Sealed (BK)

## Connector Part Information

Harness Type: Chassis Rear Right
OEM Connector: 3618231C1
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way M 2.8 APEX Series, Sealed (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Available | Not Available | Not Available | Not Available |
| II | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X455 Chassis Harness to Chassis Rear Right Harness (5DY)

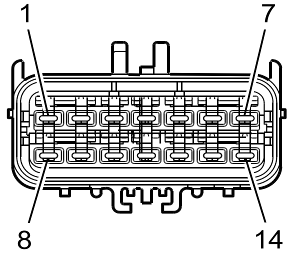
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | — | — | — | — | — | Not Occupied | 1 | — | — | — | — | — |
| 2 | 2 | GN/WH | 24 | I | — | Backup Lamp Control | 2 | 2 | GN/WH | 24 | II | — |
| 3 | 2 | YE/BN | 618 | I | — | Left Rear Turn Signal Lamp Control | 3 | 2 | YE/BN | 618 | II | — |
| 4 | 1 | GN/VT | 619 | I | — | Right Rear Turn Signal Lamp Control | 4 | 2 | GN/VT | 619 | II | — |
| 5 | 0.75<br>1 | VT/GY<br>VT/GY | 1054<br>1054 | I<br>I | —<br>— | Stop Lamp Control<br>Stop Lamp Control | 5 | 2 | VT/GY | 1054 | II | — |
| 6 - 7 | — | — | — | — | — | Not Occupied | 6 - 7 | — | — | — | — | — |
| 8 | 2 | VT/GY | 709 | I | — | Left Park Lamp Control | 8 | 2 | VT/GY | 709 | II | — |
| 9 | 2 | GY/BN | 309 | I | — | Right Park Lamp Control | 9 | 2 | GY/BN | 309 | II | — |
| 10 - 11 | — | — | — | — | — | Not Occupied | 10 - 11 | — | — | — | — | — |

## X455 Chassis Harness to Chassis Rear Right Harness (5DY) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 1 | YE/BU | 18 | I | — | Left Rear Stop/Turn Lamp Control | 12 | 2 | YE/BU | 18 | II | — |
| 13 | 1 | BN/GN | 19 | I | — | Right Rear Stop/Turn Lamp Control | 13 | 2 | BN/GN | 19 | II | — |
| 14 | 2 | RD/GN | 1142 | I | — | Battery Positive Voltage | 14 | 2 | RD/YE | 1142 | II | — |

# X495 Body Builder Connection Harness to Chassis Rear Right Harness (5DY)

—



4976624

### Connector Part Information

Harness Type: Body Builder Connection
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way F

### Connector Part Information

Harness Type: Chassis Rear Right
OEM Connector: 3618231C1
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way M 2.8 APEX Series, Sealed (BK)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

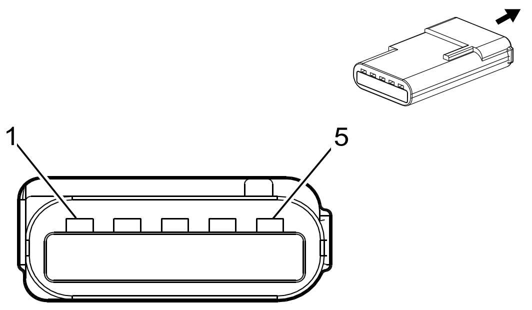
### X495 Body Builder Connection Harness to Chassis Rear Right Harness (5DY)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 10 | I | — | Headlamp Switch Signal | 1 | 1.5 | BK | 10 | II | — |
| 2 | 2 | GN/WH | 24 | I | — | Backup Lamp Control | 2 | 2 | GN/WH | 24 | II | — |
| 3 | 2 | YE/BN | 618 | I | — | Left Rear Turn Signal Lamp Control | 3 | 2 | YE/BN | 618 | II | — |
| 4 | 2 | GN/VT | 619 | I | — | Right Rear Turn Signal Lamp Control | 4 | 2 | GN/VT | 619 | II | — |
| 5 | 2 | VT/GY | 1054 | I | — | Stop Lamp Control | 5 | 2 | VT/GY | 1054 | II | — |
| 6 | 2 | VT/GY | 709 | I | — | Left Park Lamp Control | 6 | 2 | VT/GY | 709 | II | — |
| 8 | 2 | VT/GY | 709 | I | — | Left Park Lamp Control | 8 | 2 | VT/GY | 709 | II | — |
| 9 | 2 | GY/BN | 309 | I | — | Right Park Lamp Control | 9 | 2 | GY/BN | 309 | II | — |
| 12 | 2 | YE/BU | 18 | I | — | Left Rear Stop/Turn Lamp Control | 12 | 2 | YE/BU | 18 | II | — |

## X495 Body Builder Connection Harness to Chassis Rear Right Harness (5DY) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13 | 2 | BN/ GN | 19 | I | — | Right Rear Stop/Turn Lamp Control | 13 | 2 | BN/ GN | 19 | II | — |
| 14 | 2 | RD/ YE | 1142 | I | — | Battery Positive Voltage | 14 | 2 | RD/ YE | 1142 | II | — |

# X499 Rearview Camera Jumper Harness to Chassis Rear Right Harness (UVC)



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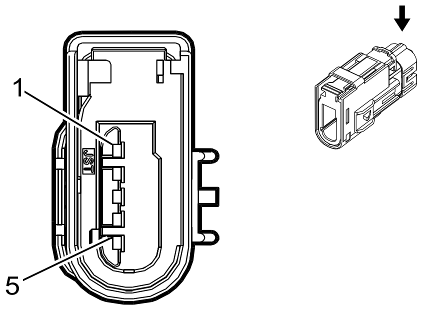


3277922

### Connector Part Information

Harness Type: Rearview Camera Jumper
OEM Connector: 13582041
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way F 1.2 Series, Sealed (GY)

### Connector Part Information

Harness Type: Chassis Rear Right
OEM Connector: 4102336C1
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way M 1.2 Series, Sealed (BK)

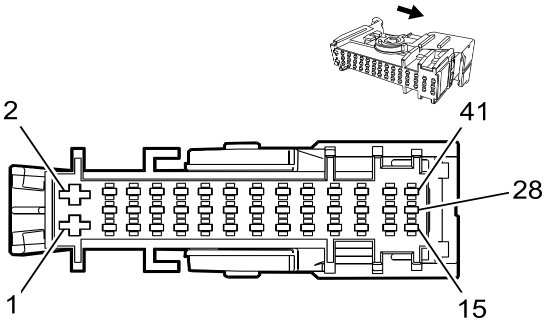
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X499 Rearview Camera Jumper Harness to Chassis Rear Right Harness (UVC)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.75 | GY/YE | 6972 | I | — | Camera Signal 2 + | 1 | 0.75 | GY/YE | 6972 | II | — |
| 2 | 0.75 | WH/BU | 6973 | I | — | Camera Signal 2 | 2 | 0.75 | WH/BU | 6973 | II | — |
| 3 | 0.5 | WH | 6974 | I | — | Camera Low Reference | 3 | 0.5 | BK | 6974 | II | — |
| 4 | 0.75 | BK | 2550 | I | — | Ground | 4 | 0.75 | BK | 2550 | II | — |
| 5 | 0.75 | VT/GN | 1739 | I | — | Run/Crank Ignition 1 Voltage | 5 | 0.75 | VT/GN | 1739 | II | — |

## X500 Driver Door Harness to Body Harness



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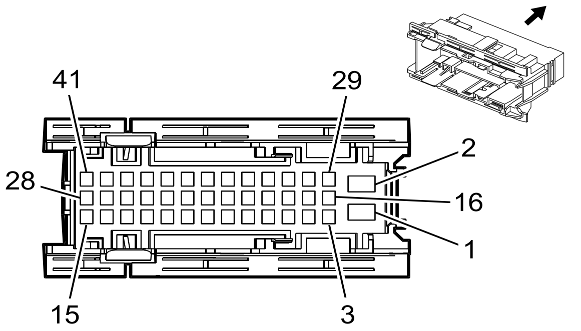


2474679

### Connector Part Information

Harness Type: Driver Door
OEM Connector: 13600509
Service Connector: Service by Harness - See Part Catalog
Description: 41-Way F 4.8 Timer, 1.5 DSQ Series

### Connector Part Information

Harness Type: Body
OEM Connector: 13946876
Service Connector: 13587760
Description: 41-Way M 1.5, 2.8 Series (GY)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-42 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | 13575593 | J-35616-34 (YE) | J-38125-560 | 964265-2 | Lear 28 | E | 2 |
| IV | 13575775 | J-35616-34 (YE) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| V | 13582220 | J-35616-32 (OR) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| VI | 19368263 | J-35616-3 (GY) | J-38125-12A | 964265-2 | Lear 28 | E | 2 |
| VII | 19368263 | J-35616-3 (GY) | J-38125-12A | 964265-2 | Lear 28 | E | C |
| VIII | 19370815 | J-35616-32 (OR) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |

### X500 Driver Door Harness to Body Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.5 | RD/ D-BU | 1842 | II | — | Battery Positive Voltage | 1 | 2.5 | RD/ D-BU | 1842 | V | — |
| 2 | 3 | BK | 1150 | II | — | Ground | 2 | 4 | BK | 1150 | VIII | — |
| 3 | 0.5 | GY/ WH | 5996 | I | — | Driver Outside Rear View Mirror Puddle Lamp Control | 3 | — | — | — | — | — |
| 4 | 0.5 | WH | 3398 | I | — | Passenger Mirror Motor Common Control | 4 | 0.5 | WH | 3398 | VI | — |

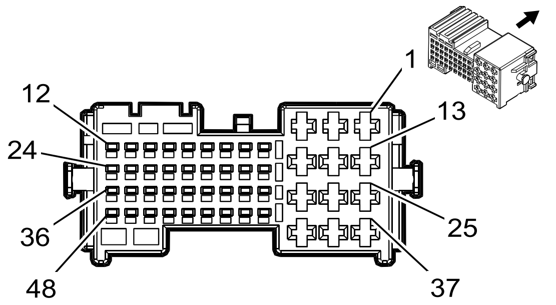
## X500 Driver Door Harness to Body Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 0.35 | YE/BK | 1690 | I | — | Automatic Day/Night Mirror Signal | 5 | — | — | — | — | — |
| 6 | 0.35 | BK/YE | 1691 | I | — | Automatic Day/Night Mirror Low Reference | 6 | — | — | — | — | — |
| 7 | 0.35 | D-BU/L-GN | 614 | I | — | Memory Seat Switch Set Signal | 7 | 0.5 | WH/L-GN | 3412 | VI | — |
| 8 | 0.35 | WH | 615 | I | — | Memory Seat Switch Signal 1 | 8 | 0.5 | GY/WH | 3411 | VI | — |
| 9 | 0.5 | WH/VT | 1430 | I | — | Exterior Courtesy Lamp Control | 9 | 0.5 | WH/VT | 1430 | VI | — |
| 10 | 1 | D-BU | 201 | I | — | Left Front Speaker Control (+) 1 | 10 | 0.75 | D-BU | 201 | VII | — |
| 11 | 0.5 | VT/GY | 709 | I | — | Left Park Lamp Control | 11 | 0.5 | VT/GY | 709 | VI | — |
| 12 | 0.35 | GY | 745 | I | — | Left Front Door Ajar Switch Signal | 12 | 0.35 | GY | 745 | IV | — |
| 13 | 0.35 | WH/VT | 3270 | I | — | Driver Door Lock Motor Status Signal | 13 | 0.35 | WH/VT | 3270 | IV | — |
| 14 | 0.5 | OG/L-GN | 2132 | I | — | Left Front Side Impact Sensing Module Signal | 14 | — | — | — | — | — |
| 15 | 0.5 | BK/OG | 6628 | I | — | Left Front Side Impact Sensing Module Low Reference | 15 | — | — | — | — | — |
| 16 | 0.35 | WH | 6816 | I | — | Indicator Dimming Control | 16 | 0.5 | WH | 6816 | VI | — |
| 17 | 0.35 | BN/WH | 781 | I | — | Driver Door Lock Switch Unlock Signal | 17 | 0.35 | BN/WH | 781 | IV | — |
| 18 | 0.35 | BN/YE | 780 | I | — | Driver Door Lock Switch Lock Signal | 18 | 0.35 | BN/YE | 780 | IV | — |
| 19 | 0.75 | BN/BK | 294 | I | — | Door Lock Actuator Unlock Control | 19 | 0.75 | BN/YE | 294 | VII | — |
| 20 | 0.75 | GY | 5911 | I | — | Door Lock Actuator Lock Control 2 | 20 | 0.75 | GY | 5911 | VII | — |
| 21 | 0.35 | BK/D-BU | 5978 | I | — | Memory Switch Low Reference | 21 | — | — | — | — | — |
| 22 | — | — | — | — | — | Not Occupied | 22 | — | — | — | — | — |

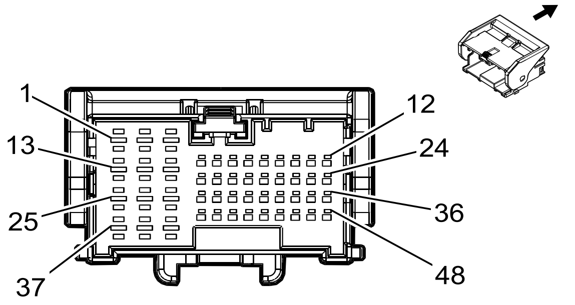
## X500 Driver Door Harness to Body Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 23 | 1 | BN/ D-BU | 118 | I | — | Left Front Speaker Signal (-) 1 | 23 | 0.75 | BN/ D-BU | 118 | VII | — |
| 24 - 25 | — | — | — | — | — | Not Occupied | 24 - 25 | — | — | — | — | — |
| 26 | 0.35 | D-BU/ VT | 1124 | I | — | Door Lock Key Switch Unlock Signal | 26 | 0.35 | D-BU/ VT | 1124 | IV | — |
| 27 - 28 | — | — | — | — | — | Not Occupied | 27 - 28 | — | — | — | — | — |
| 29 | 0.35 | YE | 6817 | I | — | LED Backlight Dimming Control | 29 | 0.35 | YE | 6817 | IV | — |
| 30 | 0.35 | WH/ YE | 7557 | I | — | LED Ambient Lighting Control 1 | 30 | 0.35 | WH/ YE | 7557 | IV | — |
| 31 | 0.5 | BN/ OG | 2267 | I | — | Mirror Heating Element Control | 31 | 0.5 | BN/ YE | 2267 | VI | — |
| 32 | 0.35 | GY | 5697 | I | — | Child Lockout Indicator Control | 32 | 0.35 | GY | 5697 | IV | — |
| 33 | 0.5 | L-GN/ YE | 6134 | I | — | Local Interconnect Network Serial Data Bus 3 | 33 | 0.5 | L-GN/ YE | 6134 | III | — |
| 34 | 0.5 | L-GN/ WH | 7530 | I | — | Local Interconnect Network Serial Data Bus 8 | 34 | — | — | — | — | — |
| 35 | 0.35 | BN/ RD | 3265 | I | — | Child Security Lock Switch Signal | 35 | 0.35 | YE/ BN | 3265 | IV | — |
| 36 | 0.5 | L-GN/ BK | 3396 | I | — | Passenger Mirror Motor Right (+) Left (-) Control | 36 | 0.5 | L-GN/ BK | 3396 | VI | — |
| 37 | — | — | — | — | — | Not Occupied | 37 | — | — | — | — | — |
| 38 | 0.5 | YE/ VT | 3397 | I | — | Passenger Mirror Motor Up (+) Down (-) Control | 38 | 0.5 | YE/ VT | 3397 | VI | — |
| 39 | — | — | — | — | — | Door Double Lock Actuator Lock Control | 39 | 0.75 | BN | 5910 | VII | — |
| 40 | 0.5 | RD/ VT | 1940 | I | — | Battery Positive Voltage | 40 | 0.5 | RD/ VT | 1940 | VI | — |
| 41 | 0.5 | D-BU/ WH | 1314 | I | — | Left Front Turn Signal Lamp Control | 41 | 0.75 | D-BU/ WH | 1314 | VII | — |

# X505 Driver Door Harness to Driver Door Trim Harness (A31)



3277913



3277901

## Connector Part Information

Harness Type: Driver Door
OEM Connector: 13889713
Service Connector: Service by Harness - See Part Catalog
Description: 48-Way F 1.2 MCON, 2.8 MCP Series (BK)

## Connector Part Information

Harness Type: Driver Door Trim
OEM Connector: 15512031
Service Connector: Service by Harness - See Part Catalog
Description: 48-Way M 1.2 MCON, 2.8 MCP Series (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| IV | Not Required | J-35616-5 (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X505 Driver Door Harness to Driver Door Trim Harness (A31)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | YE | 6817 | II | — | LED Backlight Dimming Control | 1 | 0.35 | YE | 6817 | IV | — |
| 2 | 0.35 | WH/YE | 7557 | II | — | LED Ambient Lighting Control 1 | 2 | 0.35 | WH/YE | 7557 | IV | — |
| 3 | 0.35 | WH | 6816 | II | — | Indicator Dimming Control | 3 | 0.35 | WH | 6816 | IV | — |
| 4 | — | — | — | — | — | Not Occupied | 4 | — | — | — | — | — |
| 5 | 0.5 | BN/BK | 3389 | I | — | Driver Mirror Motor Right (+) Left (-) Control | 5 | 0.75 | BN/BK | 3389 | III | — |
| 6 | 0.5 | VT/D-BU | 3390 | I | — | Driver Mirror Motor Up (+) Down (-) Control | 6 | 0.75 | VT/D-BU | 3390 | III | — |

## X505 Driver Door Harness to Driver Door Trim Harness (A31) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 0.5 | YE/ BN | 3391 | I | — | Driver Mirror Motor Common Control | 7 | 0.75 | YE/ BN | 3391 | III | — |
| 8 | 0.5 | GY/ WH | 3411 | I | — | Driver Mirror Motor Fold Out Control | 8 | 0.75 | GY/ WH | 3411 | III | — |
| 9 | 0.5 | WH/ L-GN | 3412 | I | — | Driver Mirror Motor Fold In Control | 9 | 0.75 | WH/ L-GN | 3412 | III | — |
| 10 | 0.35 | GY/ BN | 3394 | I | — | Driver Mirror Position Sensor Up (+) Down (-) Signal | 10 | 0.35 | GY/ BN | 3394 | III | — |
| 11 | 0.5 | BN/ BK | 3389 | I | — | Driver Mirror Motor Right (+) Left (-) Control | 11 | 0.75 | BN/ BK | 3389 | III | — |
| 12 | 0.35 | VT/ RD | 3392 | I | — | Driver Mirror Position Sensor 5V Reference | 12 | 0.35 | VT/ RD | 3392 | III | — |
| 13 | 0.35 | WH/ YE | 3395 | II | — | Driver Mirror Position Sensor Left (-) Right (+) Signal | 13 | 0.35 | WH/ YE | 3395 | IV | — |
| 14 | 0.35 | BK/ BN | 3393 | II | — | Driver Mirror Position Sensor Low Reference | 14 | 0.35 | BK/ BN | 3393 | IV | — |
| 15 - 16 | — | — | — | — | — | Not Occupied | 15 - 16 | — | — | — | — | — |
| 17 | 0.5 | BK | 1150 | I | — | Ground | 17 | 0.35 | BK | 1150 | III | — |
| 18 - 21 | — | — | — | — | — | Not Occupied | 18 - 21 | — | — | — | — | — |
| 22 | 0.5 | RD/ VT | 1940 | I | — | Battery Positive Voltage | 22 | 0.5 | RD/ VT | 1940 | III | — |
| 23 | 0.75 | BK | 1150 | I | — | Ground | 23 | 0.75 | BK | 1150 | III | — |
| 24 | — | — | — | — | — | Not Occupied | 24 | — | — | — | — | — |
| 25 | 0.5 | GY/ WH | 3411 | II | — | Driver Mirror Motor Fold Out Control | 25 | 0.75 | GY/ WH | 3411 | IV | — |
| 26 | 0.5 | WH/ L-GN | 3412 | II | — | Driver Mirror Motor Fold In Control | 26 | 0.75 | WH/ L-GN | 3412 | IV | — |
| 27 - 28 | — | — | — | — | — | Not Occupied | 27 - 28 | — | — | — | — | — |
| 29 | 0.35 | GY | 1136 | I | — | Power Window Master Switch Left Front Down Signal | 29 | 0.35 | GY | 1136 | III | — |

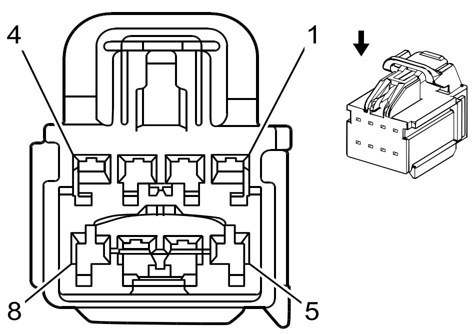
## X505 Driver Door Harness to Driver Door Trim Harness (A31) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | 0.35 | L-GN/WH | 1300 | I | — | Power Window Master Switch Left Front Up Signal | 30 | 0.35 | L-GN/WH | 1300 | III | — |
| 31 | 0.35 | L-GN/VT | 7628 | I | — | Power Window Motor Left Front Express Control | 31 | 0.35 | L-GN/VT | 7628 | III | — |
| 32 | 0.35 | BK/D-BU | 5978 | I | — | Memory Switch Low Reference | 32 | 0.35 | BK/D-BU | 5978 | III | — |
| 33 | 0.35 | D-BU/L-GN | 614 | I | — | Memory Seat Switch Set Signal | 33 | 0.35 | D-BU/L-GN | 614 | III | — |
| 34 | 0.35 | WH | 615 | I | — | Memory Seat Switch Signal 1 | 34 | 0.35 | WH | 615 | III | — |
| 35 | — | — | — | — | — | Not Occupied | 35 | — | — | — | — | — |
| 36 | 0.5 | L-GN/YE | 6134 | I | — | Local Interconnect Network Serial Data Bus 3 | 36 | 0.5 | L-GN/YE | 6134 | III | — |
| 37 | 0.5 | L-GN/WH | 7530 | II | — | Local Interconnect Network Serial Data Bus 8 | 37 | 0.5 | L-GN/WH | 7530 | IV | — |
| 38 - 39 | — | — | — | — | — | Not Occupied | 38 - 39 | — | — | — | — | — |
| 40 | 0.35 | BN/RD | 3265 | I | — | Child Security Lock Switch Signal | 40 | 0.35 | YE/BN | 3265 | III | — |
| 41 | 0.35 | WH/VT | 3270 | I | — | Driver Door Lock Motor Status Signal | 41 | 0.35 | WH/VT | 3270 | III | — |
| 42 | 0.5 | L-GN/BK | 3396 | I | — | Passenger Mirror Motor Right (+) Left (-) Control | 42 | 0.75 | L-GN/BK | 3396 | III | — |
| 43 | 0.5 | YE/VT | 3397 | I | — | Passenger Mirror Motor Up (+) Down (-) Control | 43 | 0.75 | YE/VT | 3397 | III | — |
| 44 | 0.5 | WH | 3398 | I | — | Passenger Mirror Motor Common Control | 44 | 0.75 | WH | 3398 | III | — |
| 45 | 0.35 | GY | 5697 | I | — | Child Lockout Indicator Control | 45 | 0.35 | GY | 5697 | III | — |
| 46 | 0.35 | D-BU/VT | 1124 | I | — | Door Lock Key Switch Unlock Signal | 46 | 0.35 | D-BU/VT | 1124 | III | — |

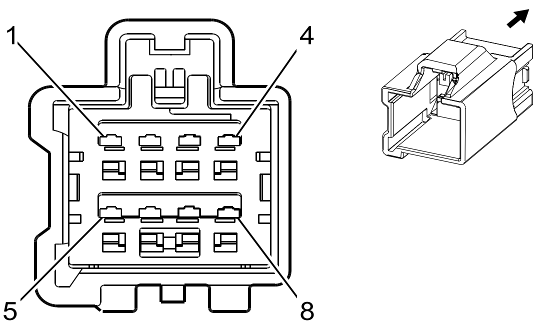
## X505 Driver Door Harness to Driver Door Trim Harness (A31) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 0.35 | BN/ WH | 781 | I | — | Driver Door Lock Switch Unlock Signal | 47 | 0.35 | BN/ WH | 781 | III | — |
| 48 | 0.35 | BN/ YE | 780 | I | — | Driver Door Lock Switch Lock Signal | 48 | 0.35 | BN/ YE | 780 | III | — |

# X506 Driver Door Trim Harness to Driver Door Harness (-A31)



1849808



1849807

## Connector Part Information

Harness Type: Driver Door Trim
OEM Connector: 10846802
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 1.5 YESC Kaizen Series (L-GY)

## Connector Part Information

Harness Type: Driver Door
OEM Connector: 10847035
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 1.5 YESC Kaizen Series (L-GY)

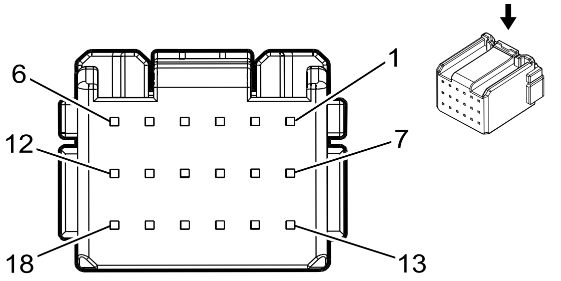
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X506 Driver Door Trim Harness to Driver Door Harness (-A31)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 - 3 | — | — | — | — | — | Not Occupied | 1 - 3 | — | — | — | — | — |
| 4 | 0.35 | BN/YE | 780 | I | — | Driver Door Lock Switch Lock Signal | 4 | 0.35 | BN/YE | 780 | II | — |
| 5 | 0.35 | BN/WH | 781 | I | — | Driver Door Lock Switch Unlock Signal | 5 | 0.35 | BN/WH | 781 | II | — |
| 6 | 0.35 | YE | 6817 | I | — | LED Backlight Dimming Control | 6 | 0.35 | YE | 6817 | II | — |
| 7 | 0.35 | BK | 1150 | I | — | Ground | 7 | 0.5 | BK | 1150 | II | — |
| 8 | — | — | — | — | — | Not Occupied | 8 | — | — | — | — | — |

# X510 Outside Rearview Mirror - Driver Harness to Driver Door Harness (DPN)



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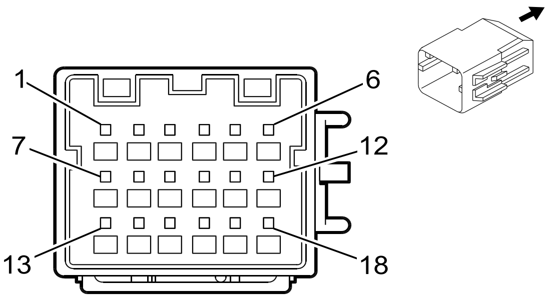


2907751

## Connector Part Information

Harness Type: Outside Rearview Mirror - Driver
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 18-Way F

## Connector Part Information

Harness Type: Driver Door
OEM Connector: 13888973
Service Connector: Service by Harness - See Part Catalog
Description: 18-Way M 0.64 Series (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-65B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

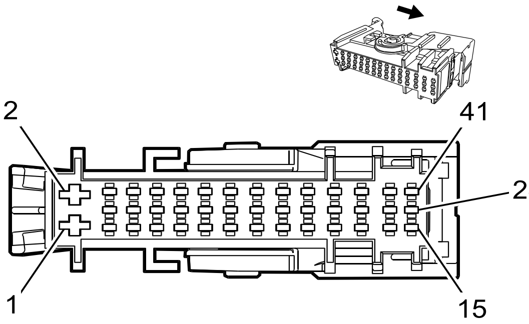
## X510 Outside Rearview Mirror - Driver Harness to Driver Door Harness (DPN)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/GY | 709 | I | DPN | Left Park Lamp Control | 1 | 0.5 | VT/GY | 709 | II | DPN |
| 2 | 0.5 | WH/VT | 1430 | I | DPN | Exterior Courtesy Lamp Control | 2 | 0.5 | WH/VT | 1430 | II | DPN |
| 3 | 0.35 | BK/BN | 3393 | I | — | Driver Mirror Position Sensor Low Reference | 3 | 0.35 | BK/BN | 3393 | II | — |
| 4 | 0.5 | GY/WH | 3411 | I | — | Driver Mirror Motor Fold Out Control | 4 | 0.5 | GY/WH | 3411 | II | — |
| 5 | 0.5 | BK | 1150 | I | — | Ground | 5 | 0.5 | BK | 1150 | II | — |
| 6 | — | — | — | — | — | Not Occupied | 6 | — | — | — | — | — |
| 7 | 0.35 | WH/YE | 3395 | I | — | Driver Mirror Position Sensor Left (-) Right (+) Signal | 7 | 0.35 | WH/YE | 3395 | II | — |
| 8 | 0.5 | BN/OG | 2267 | I | — | Mirror Heating Element Control | 8 | 0.5 | BN/OG | 2267 | II | — |

## X510 Outside Rearview Mirror - Driver Harness to Driver Door Harness (DPN) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 0.5 | VT/D-BU | 3390 | I | — | Driver Mirror Motor Up (+) Down (-) Control | 9 | 0.5 | VT/D-BU | 3390 | II | — |
| 10 | 0.5 | BN/BK | 3389 | I | — | Driver Mirror Motor Right (+) Left (-) Control | 10 | 0.5 | BN/BK | 3389 | II | — |
| 11 | 0.5 | BK | 1150 | I | — | Ground | 11 | 0.5 | BK | 1150 | II | — |
| 12 | 0.5 | YE/BN | 3391 | I | — | Driver Mirror Motor Common Control | 12 | 0.5 | YE/BN | 3391 | II | — |
| 13 | 0.5 | D-BU/WH | 1314 | I | — | Left Front Turn Signal Lamp Control | 13 | 0.5 | D-BU/WH | 1314 | II | — |
| 14 | 0.35 | GY/BN | 3394 | I | — | Driver Mirror Position Sensor Up (+) Down (-) Signal | 14 | 0.35 | GY/BN | 3394 | II | — |
| 15 | — | — | — | — | — | Not Occupied | 15 | — | — | — | — | — |
| 16 | 0.35 | BK/YE | 1691 | I | — | Automatic Day/Night Mirror Low Reference | 16 | 0.35 | BK/YE | 1691 | II | — |
| 17 | 0.35 | VT/RD | 3392 | I | — | Driver Mirror Position Sensor 5V Reference | 17 | 0.35 | VT/RD | 3392 | II | — |
| 18 | 0.5 | WH/L-GN | 3412 | I | — | Driver Mirror Motor Fold In Control | 18 | 0.5 | WH/L-GN | 3412 | II | — |

# X600 Passenger Door Harness to Body Harness



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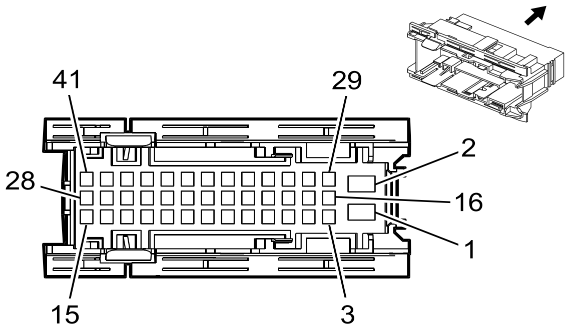


2474679

## Connector Part Information

Harness Type: Passenger Door
OEM Connector: 13600509
Service Connector: Service by Harness - See Part Catalog
Description: 41-Way F 4.8 Timer, 1.5 DSQ Series

## Connector Part Information

Harness Type: Body
OEM Connector: 13946876
Service Connector: 13587760
Description: 41-Way M 1.5, 2.8 Series (GY)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-42 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | 19370817 | J-35616-3 (GY) | J-38125-560 | 964265-2 | Lear 28 | E | 2 |
| IV | 19370817 | J-35616-3 (GY) | J-38125-560 | 964265-2 | Lear 28 | E | C |
| V | 19370817 | J-35616-32 (OR) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| VI | 19370817 | J-35616-34 (YE) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |

## X600 Passenger Door Harness to Body Harness

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.5 | RD/WH | 1340 | II | — | Battery Positive Voltage | 1 | 2.5 | RD/WH | 1340 | V | — |
| 2 | 2.5 | BK | 1250 | II | — | Ground | 2 | 2.5 | BK | 1250 | V | — |
| 3 | 0.5 | GY/L-GN | 5996 | I | — | Driver Outside Rear View Mirror Puddle Lamp Control | 3 | — | — | — | — | — |
| 4 | 0.5 | WH | 3398 | I | — | Passenger Mirror Motor Common Control | 4 | 0.5 | WH | 3398 | III | — |
| 5 - 6 | — | — | — | — | — | Not Occupied | 5 - 6 | — | — | — | — | — |

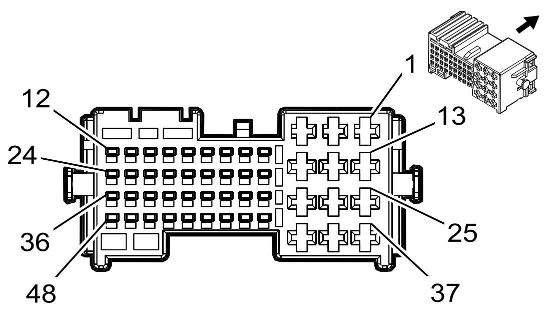
## X600 Passenger Door Harness to Body Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 0.5 | WH/ L-GN | 3412 | I | — | Driver Mirror Motor Fold In Control | 7 | 0.5 | WH/ L-GN | 3412 | III | — |
| 8 | 0.5 | GY/ WH | 3411 | I | — | Driver Mirror Motor Fold Out Control | 8 | 0.5 | GY/ WH | 3411 | III | — |
| 9 | 0.5 | WH/ VT | 1430 | I | — | Exterior Courtesy Lamp Control | 9 | 0.5 | WH/ VT | 1430 | III | — |
| 10 | 1 | YE/ BK | 117 | I | — | Right Front Speaker Signal (-) 1 | 10 | 0.75 | YE/ BK | 117 | IV | — |
| 11 | 0.5 | GY/ BN | 309 | I | — | Right Park Lamp Control | 11 | 0.5 | GY/ BN | 309 | III | — |
| 12 | 0.35 | GY | 746 | I | — | Right Front Door Ajar Switch Signal | 12 | 0.35 | GY | 746 | VI | — |
| 13 | — | — | — | — | — | Not Occupied | 13 | — | — | — | — | — |
| 14 | 0.5 | OG/ L-GN | 2134 | I | — | Right Front Side Impact Sensing Module Signal | 14 | — | — | — | — | — |
| 15 | 0.5 | BK/ OG | 6629 | I | — | Right Front Side Impact Sensing Module Low Reference | 15 | — | — | — | — | — |
| 16 | — | — | — | — | — | Not Occupied | 16 | — | — | — | — | — |
| 17 | 0.35 | BN/ VT | 245 | I | — | Passenger Door Lock Switch Unlock Control | 17 | 0.35 | BN/ VT | 245 | VI | — |
| 18 | 0.35 | YE/ BK | 244 | I | — | Passenger Door Lock Switch Lock Control | 18 | 0.35 | YE/ VT | 244 | VI | — |
| 19 | 0.75 | BN/ YE | 294 | I | — | Door Lock Actuator Unlock Control | 19 | 0.75 | BN/ YE | 294 | IV | — |
| 20 | 0.75 | GY | 295 | I | — | Door Lock Actuator Lock Control | 20 | 0.75 | GY | 295 | IV | — |
| 21 | 0.5 | BK/D-BU | 61 | I | — | Outside Ambient Temperature Sensor Low Reference | 21 | 0.35 | BK/D-BU | 61 | VI | — |
| 22 | — | — | — | — | — | Not Occupied | 22 | — | — | — | — | — |
| 23 | 1 | YE | 200 | I | — | Right Front Speaker Control (+) 1 | 23 | 0.75 | YE | 200 | IV | — |

## X600 Passenger Door Harness to Body Harness (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 24 | 0.5 | D-BU/GY | 636 | I | — | Outside Ambient Air Temperature Sensor Signal | 24 | 0.35 | D-BU/GY | 636 | VI | — |
| 25 - 28 | — | — | — | — | — | Not Occupied | 25 - 28 | — | — | — | — | — |
| 29 | 0.35 | YE | 6817 | I | — | LED Backlight Dimming Control | 29 | 0.5 | YE | 6817 | III | — |
| 30 | 0.35 | WH/YE | 7557 | I | — | LED Ambient Lighting Control 1 | 30 | 0.35 | WH/YE | 7557 | VI | — |
| 31 | 0.5 | BN/OG | 2267 | I | — | Mirror Heating Element Control | 31 | 0.5 | BN/YE | 2267 | III | — |
| 32 | — | — | — | — | — | Not Occupied | 32 | — | — | — | — | — |
| 33 | 0.5 | L-GN/YE | 6134 | I | — | Local Interconnect Network Serial Data Bus 3 | 33 | 0.5 | L-GN/YE | 6134 | III | — |
| 34 - 35 | — | — | — | — | — | Not Occupied | 34 - 35 | — | — | — | — | — |
| 36 | 0.5 | L-GN/BK | 3396 | I | — | Passenger Mirror Motor Right (+) Left (-) Control | 36 | 0.5 | L-GN/BK | 3396 | III | — |
| 37 | — | — | — | — | — | Not Occupied | 37 | — | — | — | — | — |
| 38 | 0.5 | YE/VT | 3397 | I | — | Passenger Mirror Motor Up (+) Down (-) Control | 38 | 0.5 | YE/VT | 3397 | III | — |
| 39 | — | — | — | — | — | Door Double Lock Actuator Lock Control | 39 | 0.75 | BN | 5910 | IV | — |
| 40 | — | — | — | — | — | Not Occupied | 40 | — | — | — | — | — |
| 41 | 0.5 | L-GN/VT | 1315 | I | — | Right Front Turn Signal Lamp Control | 41 | 0.75 | L-GN/VT | 1315 | IV | — |

## X605 Passenger Door Harness to Passenger Door Trim Harness (A31)



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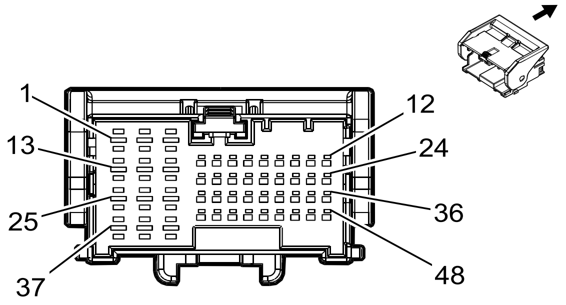


3277901

### Connector Part Information

Harness Type: Passenger Door
OEM Connector: 13889713
Service Connector: Service by Harness - See Part Catalog
Description: 48-Way F 1.2 MCON, 2.8 MCP Series (BK)

### Connector Part Information

Harness Type: Passenger Door Trim
OEM Connector: 15512031
Service Connector: Service by Harness - See Part Catalog
Description: 48-Way M 1.2 MCON, 2.8 MCP Series (BK)

### Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| IV | Not Required | J-35616-5 (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

### X605 Passenger Door Harness to Passenger Door Trim Harness (A31)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | YE | 6817 | II | — | LED Backlight Dimming Control | 1 | 0.35 | YE | 6817 | IV | — |
| 2 | 0.35 | WH/YE | 7557 | II | — | LED Ambient Lighting Control 1 | 2 | 0.35 | WH/YE | 7557 | IV | — |
| 3 - 5 | — | — | — | — | — | Not Occupied | 3 - 5 | — | — | — | — | — |
| 6 | 0.5 | YE/VT | 3397 | I | — | Passenger Mirror Motor Up (+) Down (-) Control | 6 | 0.75 | YE/VT | 3397 | III | — |
| 7 | 0.5 | WH | 3398 | I | — | Passenger Mirror Motor Common Control | 7 | 0.75 | WH | 3398 | III | — |
| 8 | 0.5 | YE/GY | 3413 | I | — | Passenger Mirror Motor Fold Out Control | 8 | 0.75 | YE/WH | 3413 | III | — |

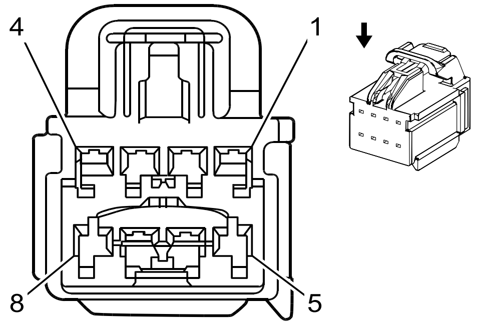
## X605 Passenger Door Harness to Passenger Door Trim Harness (A31) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 0.5 | D-BU/GY | 3414 | I | — | Passenger Mirror Motor Fold In Control | 9 | 0.75 | D-BU/GY | 3414 | III | — |
| 10 | 0.35 | D-BU/YE | 3401 | I | — | Passenger Mirror Position Sensor Up (+) Down (-) Signal | 10 | 0.35 | D-BU/YE | 3401 | III | — |
| 11 | 0.5 | L-GN/BK | 3396 | I | — | Passenger Mirror Motor Right (+) Left (-) Control | 11 | 0.75 | L-GN/BK | 3396 | III | — |
| 12 | 0.35 | YE/RD | 3399 | I | — | Passenger Mirror Position Sensor 5V Reference | 12 | 0.35 | YE/RD | 3399 | III | — |
| 13 | 0.35 | VT/WH | 3403 | II | — | Passenger Mirror Position Sensor Left (-) Right (+) Signal | 13 | 0.35 | VT/WH | 3403 | IV | — |
| 14 | 0.35 | BK/L-GN | 3400 | II | — | Passenger Mirror Position Sensor Low Reference | 14 | 0.35 | BK/L-GN | 3400 | IV | — |
| 15 | 2.5 | BK | 1250 | II | — | Ground | 15 | 2.5 | BK | 1250 | IV | — |
| 16 | — | — | — | — | — | Not Occupied | 16 | — | — | — | — | — |
| 17 | 0.5 | BK | 1250 | I | — | Ground | 17 | 0.35 | BK | 1250 | III | — |
| 18 - 24 | — | — | — | — | — | Not Occupied | 18 - 24 | — | — | — | — | — |
| 25 | 2.5 | L-GN/GY | 3387 | II | — | Power Window Motor Passenger Up Control | 25 | 2.5 | L-GN/GY | 3387 | IV | — |
| 26 | 2.5 | YE/D-BU | 3388 | II | — | Power Window Motor Passenger Down Control | 26 | 2.5 | YE/D-BU | 3388 | IV | — |
| 27 | 2.5 | RD/WH | 1340 | II | — | Battery Positive Voltage | 27 | 2.5 | RD/WH | 1340 | IV | — |
| 28 - 35 | — | — | — | — | — | Not Occupied | 28 - 35 | — | — | — | — | — |
| 36 | 0.5 | L-GN/YE | 6134 | I | — | Local Interconnect Network Serial Data Bus 3 | 36 | 0.5 | L-GN/YE | 6134 | III | — |
| 37 | 0.5 | L-GN/WH | 7530 | II | — | Local Interconnect Network Serial Data Bus 8 | 37 | 0.5 | L-GN/WH | 7530 | IV | — |
| 38 - 45 | — | — | — | — | — | Not Occupied | 38 - 45 | — | — | — | — | — |

## X605 Passenger Door Harness to Passenger Door Trim Harness (A31) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 46 | 0.35 | GY | 746 | I | — | Right Front Door Ajar Switch Signal | 46 | 0.35 | GY | 746 | III | — |
| 47 | 0.35 | BN/VT | 245 | I | — | Passenger Door Lock Switch Unlock Control | 47 | 0.35 | BN/VT | 245 | III | — |
| 48 | 0.35 | YE/BK | 244 | I | — | Passenger Door Lock Switch Lock Control | 48 | 0.35 | YE/VT | 244 | III | — |

# X606 Passenger Door Trim Harness to Passenger Door Harness (-A31)



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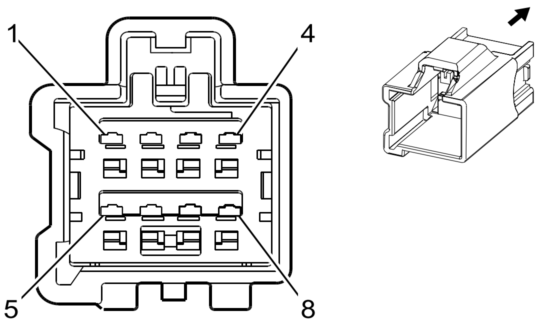


1849807

## Connector Part Information

Harness Type: Passenger Door Trim
OEM Connector: 10846802
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 1.5 YESC Kaizen Series (L-GY)

## Connector Part Information

Harness Type: Passenger Door
OEM Connector: 10847035
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 1.5 YESC Kaizen Series (L-GY)

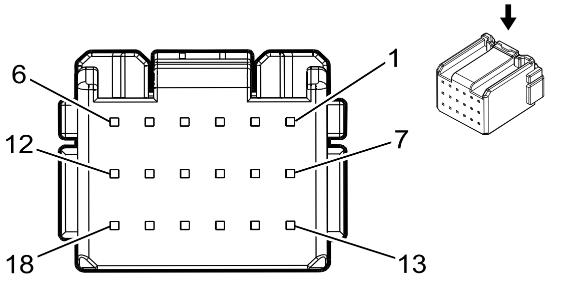
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

## X606 Passenger Door Trim Harness to Passenger Door Harness (-A31)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 - 3 | — | — | — | — | — | Not Occupied | 1 - 3 | — | — | — | — | — |
| 4 | 0.35 | YE/VT | 244 | I | — | Passenger Door Lock Switch Lock Control | 4 | 0.35 | YE/BK | 244 | II | — |
| 5 | 0.35 | BN/VT | 245 | I | — | Passenger Door Lock Switch Unlock Control | 5 | 0.35 | BN/VT | 245 | II | — |
| 6 | 0.35 | YE | 6817 | I | — | LED Backlight Dimming Control | 6 | 0.35 | YE | 6817 | II | — |
| 7 | 0.35 | BK | 1250 | I | — | Ground | 7 | 0.5 | BK | 1250 | II | — |
| 8 | — | — | — | — | — | Not Occupied | 8 | — | — | — | — | — |

# X610 Outside Rearview Mirror - Passenger Harness to Passenger Door Harness (DPN)



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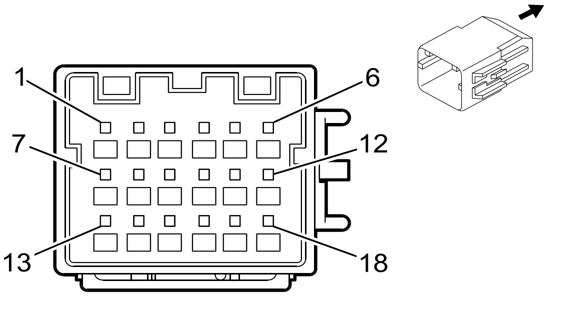

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## Connector Part Information

Harness Type: Outside Rearview Mirror - Passenger
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 18-Way F

## Connector Part Information

Harness Type: Passenger Door
OEM Connector: 13888973
Service Connector: Service by Harness - See Part Catalog
Description: 18-Way M 0.64 Series (BK)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-65B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

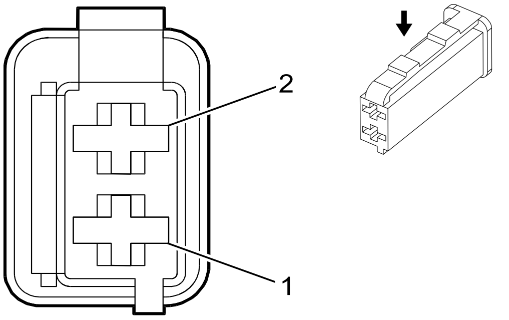
## X610 Outside Rearview Mirror - Passenger Harness to Passenger Door Harness (DPN)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/BN | 309 | I | DPN | Right Park Lamp Control | 1 | 0.5 | GY/BN | 309 | II | DPN |
| 2 | 0.5 | WH/VT | 1430 | I | — | Exterior Courtesy Lamp Control | 2 | 0.5 | WH/VT | 1430 | II | — |
| 3 | 0.35 | BK/L-GN | 3400 | I | — | Passenger Mirror Position Sensor Low Reference | 3 | 0.35 | BK/L-GN | 3400 | II | — |
| 4 | 0.5 | GY/WH | 3411 | I | — | Driver Mirror Motor Fold Out Control | 4 | 0.5 | GY/WH | 3411 | II | — |
| 5 | 0.5 | BK | 1250 | I | — | Ground | 5 | 0.5 | BK | 1250 | II | — |
| 6 | — | — | — | — | — | Not Occupied | 6 | — | — | — | — | — |
| 7 | 0.35 | VT/WH | 3403 | I | — | Passenger Mirror Position Sensor Left (-) Right (+) Signal | 7 | 0.35 | VT/WH | 3403 | II | — |
| 8 | 0.5 | BN/OG | 2267 | I | — | Mirror Heating Element Control | 8 | 0.5 | BN/OG | 2267 | II | — |

## X610 Outside Rearview Mirror - Passenger Harness to Passenger Door Harness (DPN) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 0.5 | YE/VT | 3397 | I | — | Passenger Mirror Motor Up (+) Down (-) Control | 9 | 0.5 | YE/VT | 3397 | II | — |
| 10 | 0.5 | L-GN/BK | 3396 | I | — | Passenger Mirror Motor Right (+) Left (-) Control | 10 | 0.5 | L-GN/BK | 3396 | II | — |
| 11 | 0.5 | BK | 1250 | I | — | Ground | 11 | 0.5 | BK | 1250 | II | — |
| 12 | 0.5 | WH | 3398 | I | — | Passenger Mirror Motor Common Control | 12 | 0.5 | WH | 3398 | II | — |
| 13 | 0.5 | L-GN/VT | 1315 | I | — | Right Front Turn Signal Lamp Control | 13 | 0.5 | L-GN/VT | 1315 | II | — |
| 14 | 0.35 | D-BU/YE | 3401 | I | — | Passenger Mirror Position Sensor Up (+) Down (-) Signal | 14 | 0.35 | D-BU/YE | 3401 | II | — |
| 15 | 0.5 | D-BU/GY | 636 | I | — | Outside Ambient Air Temperature Sensor Signal | 15 | 0.5 | D-BU/GY | 636 | II | — |
| 16 | 0.5 | BK/D-BU | 61 | I | — | Outside Ambient Temperature Sensor Low Reference | 16 | 0.5 | BK/D-BU | 61 | II | — |
| 17 | 0.35 | YE/RD | 3399 | I | — | Passenger Mirror Position Sensor 5V Reference | 17 | 0.35 | YE/RD | 3399 | II | — |
| 18 | 0.5 | WH/L-GN | 3412 | I | — | Driver Mirror Motor Fold In Control | 18 | 0.5 | WH/L-GN | 3412 | II | — |

# X611 Outside Rearview Mirror - Passenger Harness to Passenger Door Harness (DF2)



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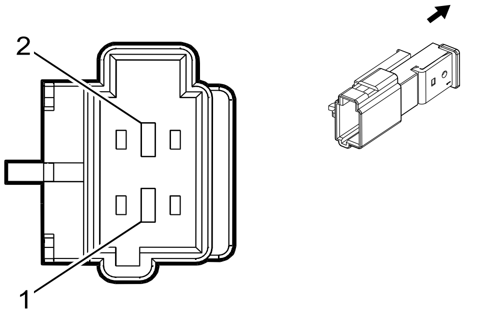


2339581

## Connector Part Information

Harness Type: Outside Rearview Mirror - Passenger
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

## Connector Part Information

Harness Type: Passenger Door
OEM Connector: 13662506
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.6 Timer Series (BK)

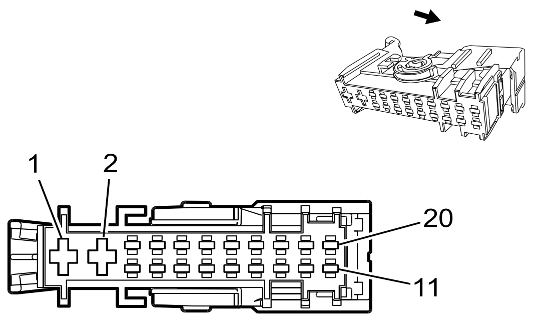
## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-33 (YE) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-34 (YE) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

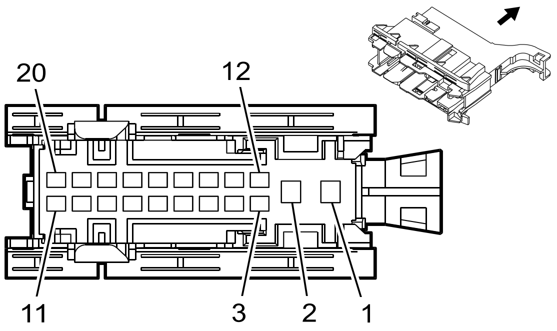
## X611 Outside Rearview Mirror - Passenger Harness to Passenger Door Harness (DF2)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.5 | D-BU/GY | 636 | I | — | Outside Ambient Air Temperature Sensor Signal | 1 | 0.5 | D-BU/GY | 636 | II | — |
| 2 | 0.5 | BK/D-BU | 61 | I | — | Outside Ambient Temperature Sensor Low Reference | 2 | 0.5 | BK/D-BU | 61 | II | — |

# X700 Left Rear Door Harness to Body Harness (Crew Cab)



2180228



3621541

## Connector Part Information

Harness Type: Left Rear Door
OEM Connector: 13600493
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.5 DSQ, 4.8 Timer Series (GY)

## Connector Part Information

Harness Type: Body
OEM Connector: 15539528
Service Connector: 19329469
Description: 20-Way M 1.5, 5.8 TTS Series (D-GY)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-42 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | 13575775 | J-35616-34 (YE) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| IV | 13582220 | J-35616-32 (OR) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| V | 19368263 | J-35616-3 (GY) | J-38125-12A | 964265-2 | Lear 28 | E | 2 |
| VI | 19368263 | J-35616-3 (GY) | J-38125-12A | 964265-2 | Lear 28 | E | C |
| VII | 19370815 | J-35616-32 (OR) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |

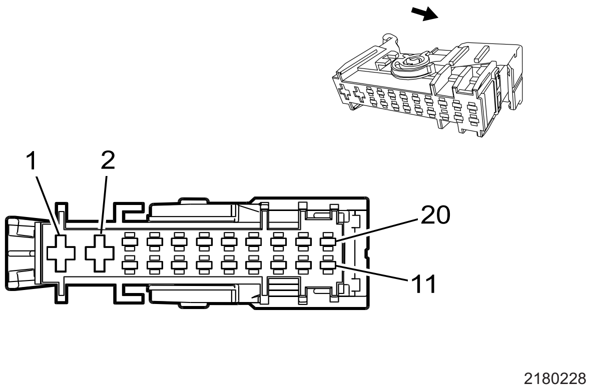
## X700 Left Rear Door Harness to Body Harness (Crew Cab)

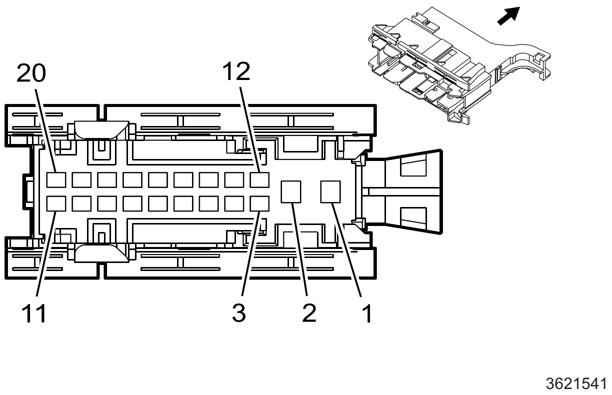
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.5 | RD/ D-BU | 1842 | II | — | Battery Positive Voltage | 1 | 2.5 | RD/ D-BU | 1842 | IV | — |
| 2 | 3 | BK | 1150 | II | — | Ground | 2 | 4 | BK | 1150 | VII | — |
| 3 - 6 | — | — | — | — | — | Not Occupied | 3 - 6 | — | — | — | — | — |
| 7 | 1 | L-GN | 199 | I | — | Left Rear Speaker Control (+) | 7 | 0.5 | L-GN | 199 | V | — |
| 8 | — | — | — | — | — | Not Occupied | 8 | — | — | — | — | — |
| 9 | 0.75 | WH/ D-BU | 3266 | I | — | Child Security Lock Motor Lock Control | 9 | 0.75 | WH/ D-BU | 3266 | VI | — |

## X700 Left Rear Door Harness to Body Harness (Crew Cab) (cont'd)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 0.75 | BN/ YE | 294 | I | — | Door Lock Actuator Unlock Control | 10 | 0.75 | BN/ YE | 294 | VI | — |
| 11 | 0.75 | GY | 295 | I | — | Door Lock Actuator Lock Control | 11 | 0.75 | GY | 295 | VI | — |
| 12 | — | — | — | — | — | Left Rear Door Ajar Switch Signal | 12 | 0.35 | GY | 747 | III | — |
| 13 | — | — | — | — | — | Door Double Lock Actuator Lock Control | 13 | 0.75 | BN | 5910 | VI | — |
| 14 - 15 | — | — | — | — | — | Not Occupied | 14 - 15 | — | — | — | — | — |
| 16 | 1 | L-GN/ BK | 116 | I | — | Left Rear Speaker Signal (-) | 16 | 0.5 | L-GN/ BK | 116 | V | — |
| 17 | 0.5 | OG/ D-BU | 6620 | I | — | Left Middle Side Impact Sensing Module Signal | 17 | — | — | — | — | — |
| 18 | 0.5 | BK/ OG | 6621 | I | — | Left Middle Side Impact Sensing Module Low Reference | 18 | — | — | — | — | — |
| 19 | 0.35 | BN/ WH | 3269 | I | — | Child Security Lock Motor Status Signal Left Rear | 19 | 0.35 | BN/ WH | 3269 | III | — |
| 20 | 0.5 | L-GN/ GY | 6135 | I | — | Local Interconnect Network Serial Data Bus 4 | 20 | 0.5 | L-GN/ GY | 6135 | V | — |

# X800 Right Rear Door Harness to Body Harness (Crew Cab)





## Connector Part Information

Harness Type: Right Rear Door
OEM Connector: 13600493
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.5 DSQ, 4.8 Timer Series (GY)

## Connector Part Information

Harness Type: Body
OEM Connector: 15539528
Service Connector: 19329469
Description: 20-Way M 1.5, 5.8 TTS Series (D-GY)

## Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-42 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | 13575775 | J-35616-34 (YE) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| IV | 13582220 | J-35616-32 (OR) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| V | 19368263 | J-35616-3 (GY) | J-38125-12A | 964265-2 | Lear 28 | E | 2 |
| VI | 19368263 | J-35616-3 (GY) | J-38125-12A | 964265-2 | Lear 28 | E | C |

## X800 Right Rear Door Harness to Body Harness (Crew Cab)

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.5 | RD/WH | 1340 | II | — | Battery Positive Voltage | 1 | 2.5 | RD/WH | 1340 | IV | — |
| 2 | 2.5 | BK | 1250 | II | — | Ground | 2 | 2.5 | BK | 1250 | IV | — |
| 3 - 6 | — | — | — | — | — | Not Occupied | 3 - 6 | — | — | — | — | — |
| 7 | 1 | WH | 46 | I | — | Right Rear Speaker Control (+) | 7 | 0.5 | WH | 46 | V | — |
| 8 | — | — | — | — | — | Not Occupied | 8 | — | — | — | — | — |
| 9 | 0.75 | WH/D-BU | 3266 | I | — | Child Security Lock Motor Lock Control | 9 | 0.75 | WH/D-BU | 3266 | VI | — |

## X800 Right Rear Door Harness to Body Harness (Crew Cab) (cont'd)

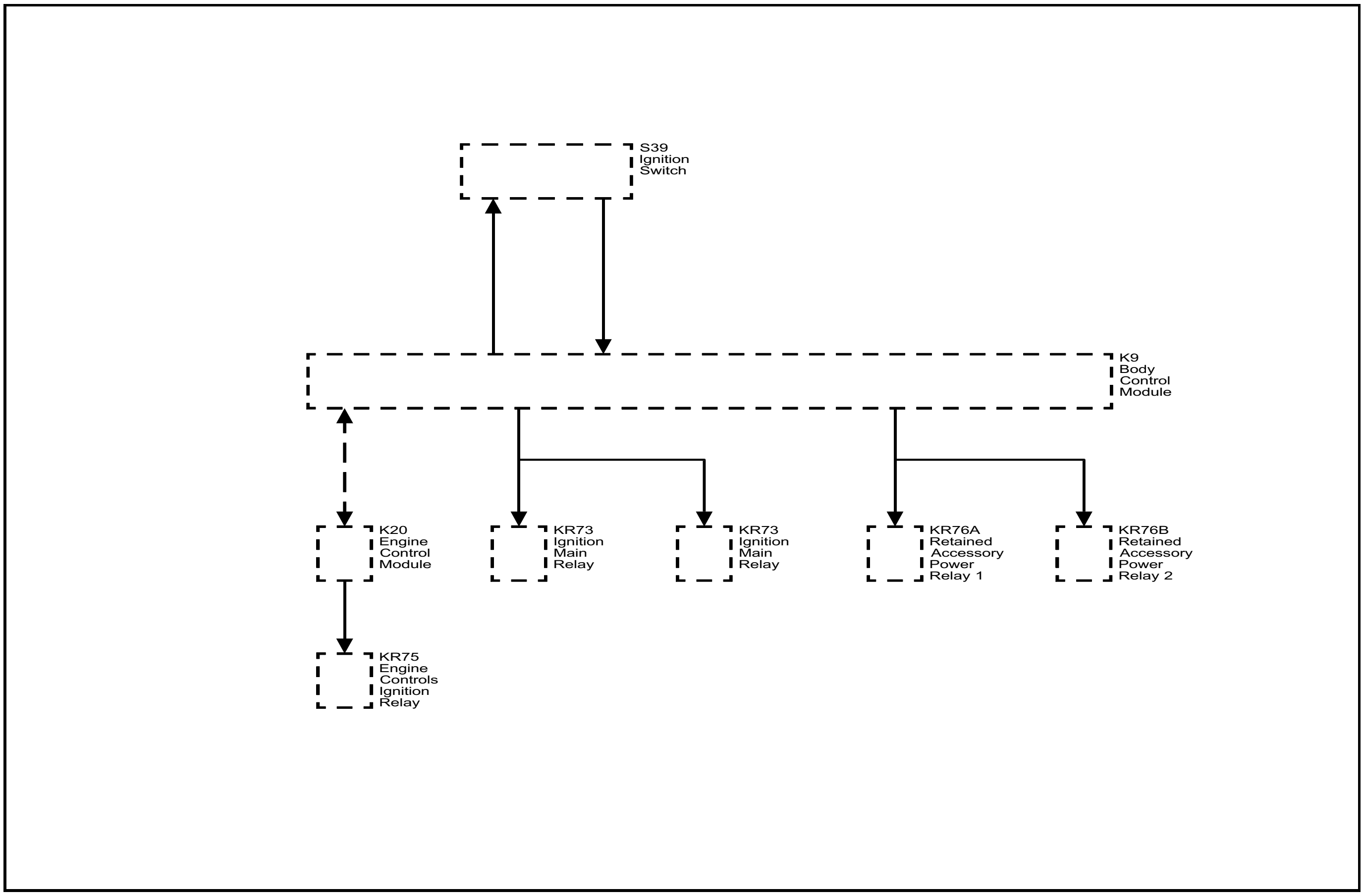
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 0.75 | BN/YE | 294 | I | — | Door Lock Actuator Unlock Control | 10 | 0.75 | BN/YE | 294 | VI | — |
| 11 | 0.75 | GY | 295 | I | — | Door Lock Actuator Lock Control | 11 | 0.75 | GY | 295 | VI | — |
| 12 | — | — | — | — | — | Right Rear Door Ajar Switch Signal | 12 | 0.35 | GY | 748 | III | — |
| 13 - 15 | — | — | — | — | — | Not Occupied | 13 - 15 | — | — | — | — | — |
| 16 | 1 | D-BU/BK | 115 | I | — | Right Rear Speaker Signal (-) | 16 | 0.5 | D-BU/BK | 115 | V | — |
| 17 | 0.5 | OG/VT | 6624 | I | — | Right Middle Side Impact Sensing Module Signal | 17 | — | — | — | — | — |
| 18 | 0.5 | BK/OG | 6625 | I | — | Right Middle Side Impact Sensing Module Low Reference | 18 | — | — | — | — | — |
| 19 | 0.35 | GY/BK | 3268 | I | — | Child Security Lock Motor Status Signal Right Rear | 19 | 0.35 | GY/BK | 3268 | III | — |
| 20 | 0.5 | L-GN/GY | 6135 | I | — | Local Interconnect Network Serial Data Bus 4 | 20 | 0.5 | L-GN/GY | 6135 | V | — |

# Description and Operation

## Power Mode Description and Operation

### Serial Data Power Mode Master

**Power Moding Description and Operation Block Diagram**


S39
Ignition
Switch
K9
Body
Control
Module
K20
Engine
Control
Module
KR73
Ignition
Main
Relay
KR73
Ignition
Main
Relay
KR76A
Retained
Accessory
Power
Relay 1
KR76B
Retained
Accessory
Power
Relay 2
KR75
Engine
Controls
Ignition
Relay

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Power to many of this vehicles circuits is controlled by the module that is designated the power mode master. This vehicles power mode master is the body control module (BCM). The BCM has multiple B+ circuits that feed into it. Each of those circuits are partitioned within the controller to drive certain outputs of the vehicle’s body functions. An open or short in any one of the B+ circuits may induce multiple codes/or a section of non-functionality within the BCM with the rest of the BCM functioning normally. In this case it is useful to refer to the power distribution schematics to determine if the non-functional partition of the controller shares a common B+ circuit. The ignition switch is a low current switch with multiple discrete ignition switch signals to the power mode master for determination of the power mode that will be sent over the serial data circuits to the other modules that need this information. The power mode master will also activate relays and other direct outputs of the power mode master as needed. The power mode master determines which power mode (Off, Accessory, Run, Crank Request) is required, and reports this information to other modules via serial data. Modules which have switched voltage inputs may operate in a default mode if the power mode serial data message does not match what the individual module can see from its own connections.

The power mode master receives ignition switch signals to identify the operators desired power mode. The Power Mode Parameter tables below illustrate the correct state of these input parameters (circuits) in correspondence to the ignition switch position:

**Power Mode Parameters**

| Ignition Switch Position | Power Mode Transmitted | Ign. Off/Run/Crank (Off/Run Crank Voltage Circuit) | Ignition Accessory/Run (Accessory Voltage Circuit) | Ignition Run/Crank (Ignition 1 Voltage Circuit) |
|---|---|---|---|---|
| Off Key Out | Off | Key Out / ACC | Inactive | Inactive |
| Off Key IN | Off | Key In / Off | Inactive | Inactive |
| Accessory | Accessory | Key Out / ACC | Active | Inactive |
| Run | Run | Run | Active | Active |
| Start | Crank Request | Crank | Inactive | Active |

## Relay Controlled Power Mode

The BCM uses the discrete ignition switch inputs Off/Run/Crank Voltage, Accessory Voltage, and Ignition 1 Voltage, to distinguish the correct power mode. The BCM, after determining the desired power mode, will activate the appropriate relays for that power mode.

The retained accessory power relay 1 and retained accessory power relay 2 remain on for a timed period after the Ignition key is removed. Refer to *Retained Accessory Power Description and Operation on page 7-568* for more information on the retained accessory power function.

## Battery Saver Mode (Transport Mode)

Battery saver mode (transport mode) reduces the parasitic load of some modules during overseas shipment or during vehicle storage conditions. This improves the drain time on the battery (up to 70 days without the battery going dead). When a vehicle is in transport/storage, some features may have reduced functionality while in the battery saver mode, such as disabling keyless entry, afterblow, and content theft features. Battery saver mode is initiated by turning on the hazard flashers, applying the brake pedal, and then turning the ignition key to the start position or pushing the ignition mode switch with the foot on the brake for greater than 15 seconds. The mode is disengaged by repeating the previous process. The driver information center (if equipped) will display Transport Mode is On when battery saver mode is enabled and Transport Mode is Off when battery saver mode is disabled. For vehicles not equipped with a driver information center, the battery indicator light will constantly flash on the Instrument Cluster when battery saver mode is enabled. This feature can be used as many times as necessary if the vehicle is to be stored for an extended period of time.

## BCM Awake/Sleep States

The BCM is able to control or perform all of the BCM functions in the awake state. The BCM enters the sleep state when active control or normal monitoring of system functions has stopped and a time limit has passed. The BCM must detect certain wake-up inputs before entering the awake state. The BCM monitors for these inputs during the sleep state.

The BCM will enter the awake state if any of the following wake-up inputs are detected:

- Activity on the serial data line
- Detection of a battery reconnect
- Any door open signal
- Headlamps ON
- Key-in-ignition
- Ignition ON
- Park lamps ON
- Keyless entry or remote start message

The BCM will enter a sleep state when all of the following conditions exist:

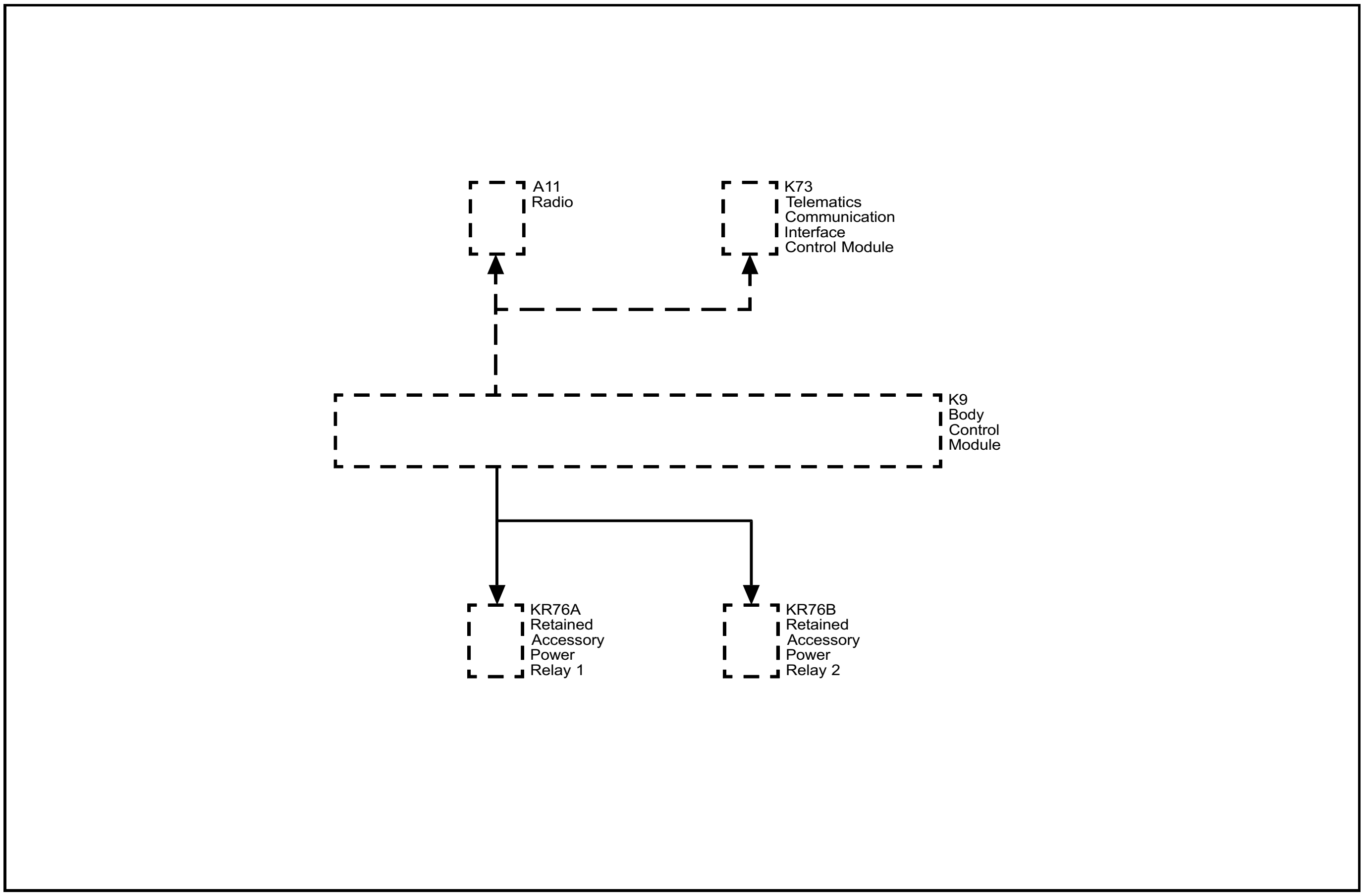
- The ignition switch is OFF, key out.
- Ignition OFF, transmitter is out of range
- No activity exists on the serial data line.
- No outputs are commanded.
- No delay timers are actively counting.
- No wake-up inputs are present.

If all these conditions are met, the BCM will enter a low power or sleep condition.

# Retained Accessory Power Description and Operation

## Retained Accessory Power

### RAP Description and Operation Block Diagram



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The body control module (BCM) monitors the ignition switch position, battery condition, and each door ajar/ open switch status to determine whether the retained accessory power should be initiated or terminated. Retained accessory power is controlled by two different methods; relay control and serial data. Some modules receive a retained accessory power message from the BCM over the serial data circuits. Serial data controlled retained accessory power is deactivated as required by their modules retained accessory power mode operation. Other subsystems are activated directly by the BCM through a relay. Components and systems that are active in retained accessory power are also activated anytime the ignition is any position other than OFF regardless of the door switch signals.

## Relay Controlled Retained Accessory Power

The BCM keeps the retained accessory power relay 1 and retained accessory power relay 2 energized during all power modes, except Off-Awake and Crank. The retained accessory power relay 1 and retained accessory power relay 2 are also energized for approximately 10 minutes after shutting the ignition OFF and removing the key, providing no door is opened.

Relay controlled retained accessory power will end when one of the following conditions is met:

- The BCM receives an input from any door ajar or open switch indicating the opening of any door after the ignition key is out of the ignition.

  **Note:** If the BCM is receiving any door ajar or open signal from those switches when the ignition key is turned OFF, retained accessory power will not initiate.

- The BCM internal timer for the retained accessory power expires after approximately 10 minutes.
- The BCM detects a decrease in battery capacity below a prescribed limit.

Systems powered by the retained accessory power relay 1 and retained accessory power relay 2 during the retained accessory power mode are as follows:

**Note:** The vehicle may not be equipped with all components as listed below.

- Accessory Power Receptacle
- Cigarette Lighter Receptacle
- Sunroof Control Module
- Sunroof Switch

- Sliding Rear Window Switch
- Mobile Device Wireless Charger Module

## Serial Data Controlled Retained Accessory Power

Retained accessory power systems controlled by serial data are as follows:

### Radio

Radio retained accessory power activation / termination is the same as relay operation with one exception; the only door switch that will turn off the radio during retained accessory power is the driver door open switch.

### Vehicle Communication Interface Module (VCIM) (Onstar®) (If Equipped)

VCIM RAP activation/termination is the same as radio operation with 1 exception; if there is an active call when the ignition key is turned off the VCIM will remain in RAP mode, and keep the radio in RAP mode until the call is terminated.

# Section 8

# Safety and Security

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BLANK

# Immobilizer

## Schematic and Routing Diagrams

## Immobilizer Schematics (Immobilizer)

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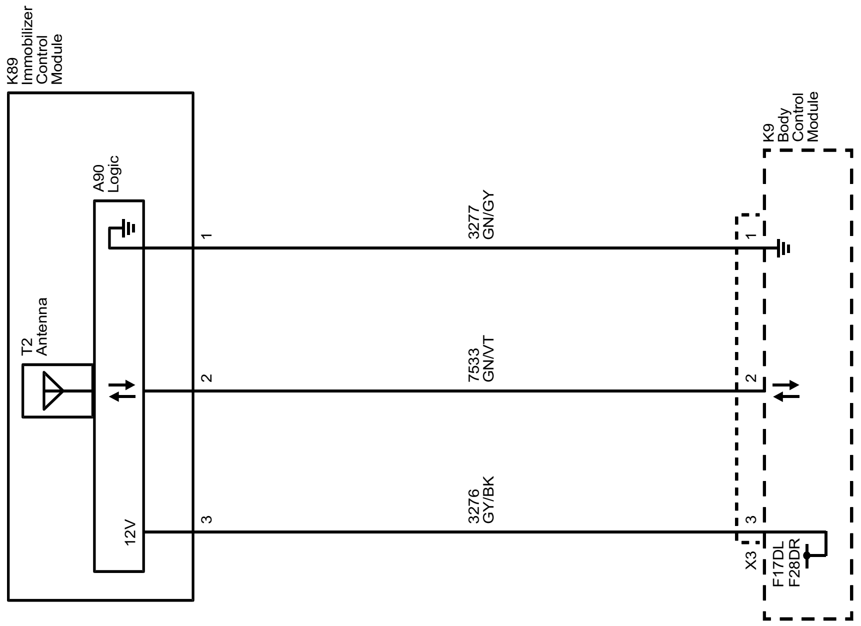
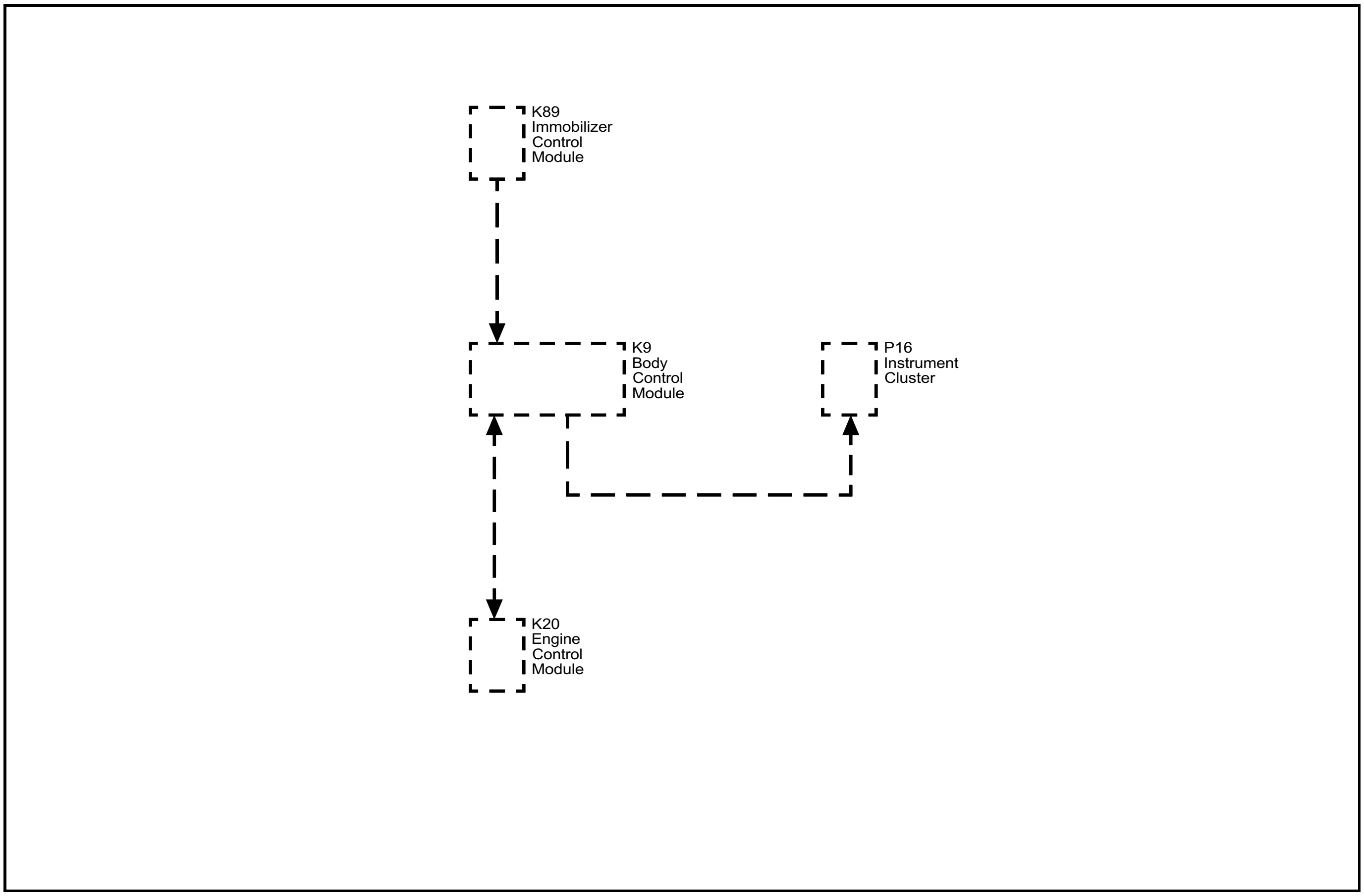

K89
Immobilizer
Control
Module
A90
Logic
T2
Antenna
12V
1
2
3
3277
GN/GY
7533
GN/VT
3276
GY/BK
K9
Body
Control
Module
1
2
3
X3
F17DL
F28DR

# Description and Operation

## Immobilizer Description and Operation



3510923

The immobilizer system functions are provided by the body control module (BCM) and the engine control module (ECM), as well as any control modules which store and report the environment identifier.

When an ignition key is inserted into the ignition lock cylinder and the ignition is switched ON, the transponder in the key is energized by the immobilizer coil surrounding the ignition lock cylinder. This immobilizer coil is part of the immobilizer control module. The transponder transmits a signal that contains its unique value, which is received by the BCM through the immobilizer coil. The BCM then compares this value to a value stored in memory. The BCM also monitors various control modules to determine if the stored environment identifiers match.

If both the environment identifier and the value received from the transponder match, the BCM will send the prerelease password via serial data to the ECM. If the encrypted code's unique value is incorrect or the environment identifier does not match, the BCM will send the start disable message to the ECM which will prevent the vehicle starter and fuel pump from operating.

When the ECM receives the BCM prerelease password, the ECM will challenge the password. The ECM sends this challenge to the BCM via serial data. Both the ECM and BCM perform a calculation on this challenge. If the BCM calculated response to the challenge equals the calculation performed by the ECM, the ECM will allow vehicle starting.

The components of the theft system are as follows:

- BCM
- ECM
- Immobilizer control module
- Ignition key
- Security indicator
- Various control modules which store and report the environment identifier

## Body Control Module (BCM)

The immobilizer system is an integral part of the BCM and is controlled internally within the BCM. The BCM can learn up to 8 keys (transponder values).

The BCM uses the following inputs:

- Environment identifier exchange with various modules
- Encrypted code from the vehicle key, received by the immobilizer control module

The BCM uses the following outputs:

- Prerelease password communication with ECM
- Challenge/response with ECM

When an ignition key is inserted into the ignition lock cylinder and the ignition is switched ON, the encrypted code in the key is energized by the immobilizer control module surrounding the ignition lock cylinder. The energized transponder transmits a signal that contains its unique value, which is received by the BCM. The BCM then compares this value to the learned key code stored in memory. The BCM then performs one of the following functions:

- If the encrypted code value matches the values stored in the BCM memory, the BCM will send the prerelease password to the ECM via serial data.
- If the encrypted code unique value does not match the value stored in the BCM, the BCM will send the start disable message to the ECM via serial data.
- If the BCM is unable to measure the ignition key encrypted code value, the BCM will not send any messages to the ECM.

### Engine Control Module (ECM)

When the ECM receives the BCM prerelease password, the ECM will challenge the password. The ECM sends this challenge to the BCM via the serial data circuit. Both the ECM and BCM perform a calculation on this challenge. If the calculated response from the BCM equals the calculation performed by the ECM, the ECM will allow vehicle starting.

The ECM will disable vehicle starting if any of the following immobilization conditions occur:

- The prerelease password is invalid.
- The start disable password is sent by the BCM.
- No passwords are received. There is no communication with the BCM.
- The BCM calculated response to the challenge does not equal the calculation performed by the ECM.

### Immobilizer Control Module

The immobilizer control module contains an immobilizer coil which surrounds the ignition cylinder. The coil passively powers the transponder located in the ignition key when the key is in the ignition. When powered, the key transmits its unique value to the immobilizer control module, which is then relayed to the BCM via a discrete serial data circuit. The immobilizer control module also receives B+ and ground from the BCM.

The immobilizer control module is used to:

1. Learn keys
2. To start the vehicle

### Ignition Key

Each ignition key contains a transponder with a unique encrypted value. The transponder's encrypted value is fixed and unable to be changed. The immobilizer system uses the ignition key transponder value to determine if a valid ignition key is being used to start the vehicle.

### Environment Identifier

Various modules throughout the vehicle learn a specific environment identifier during the module programming process. The environment identifier is learned by each individual module and matches the environment identifier stored in the BCM. Prior to starting after a battery disconnect, each of the modules which store a environment identifier will compare their identifier to that of the identifier stored in the BCM. If all the identifiers match, the engine starting process will continue. If the environment identifiers do not match, engine starting will be disabled.

### Security Indicator

The BCM will command the instrument cluster to illuminate the security indicator when the ignition is in the ON position to indicate a fault has occurred within the immobilizer system and when the engine starting is disabled.

## Remote Vehicle Speed Limiting Description and Operation

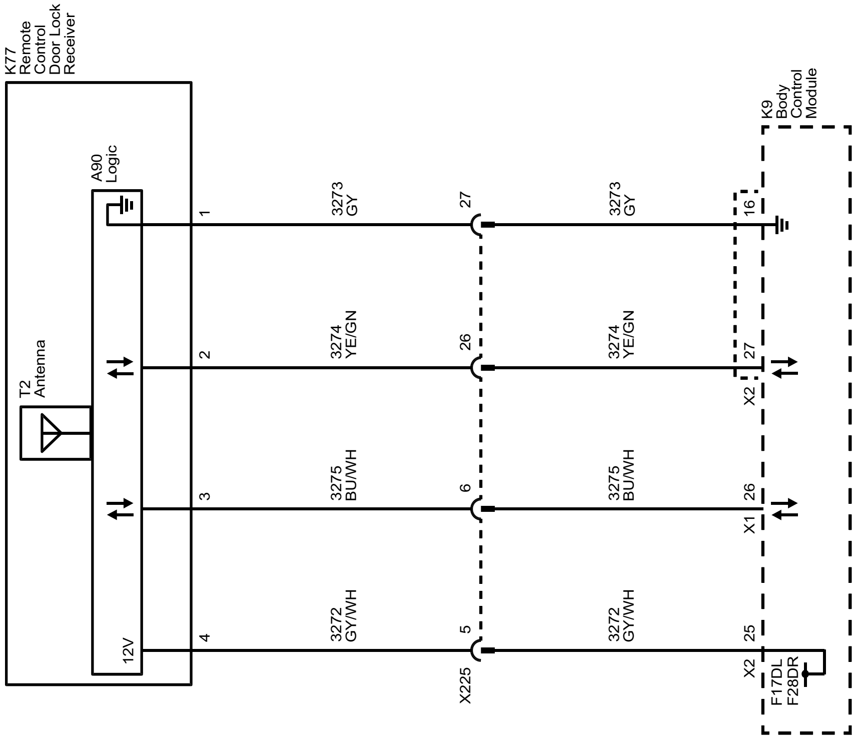
Certain vehicles equipped with OnStar® now have an additional feature that allows for remote limiting of the vehicle's speed. This OnStar® feature is called Stolen Vehicle Slow-Down and is now part of the OnStar® Stolen Vehicle Assistance service. This feature, when used in conjunction with local law enforcement and strict guidelines at the OnStar® Call Center, will slow the vehicle by interacting with the engine control system.

When the engine control system receives a valid request from the OnStar® telematics communications interface module, it will enter into a reduced engine power/vehicle speed limiting mode, which will decelerate the vehicle. Once the request is active the engine control module begins reducing engine torque to match requested vehicle speed and a REDUCED ENGINE POWER indication is displayed. No DTCs will be set during this process.

# Remote Functions

## Schematic and Routing Diagrams

# Remote Function Schematics (Keyless Entry)


K77
Remote
Control
Door Lock
Receiver
A90
Logic
T2
Antenna
12V
1
2
3
4
3273
GY
3274
YE/GN
3275
BU/WH
3272
GY/WH
27
26
6
5
X225
16
27
X2
26
X1
25
X2
F17DL
F28DR
K9
Body
Control
Module

4915104

# Description and Operation

## Garage Door Opener Description and Operation

The garage door opener is fixed and rolling code capable. Rolling code is a system that allows the code that the customers receiver receives from the garage door opener to change every time the garage door opener is used within operating range of the receiver. Rolling code programming requires the customer to push a learn/program button on the garage door opener receiver at their home. This button is usually located on the receiver unit under a cover (light cover) on one end of the unit. The customer must follow the garage door opener manufacturers instructions to program/learn the receiver to accept the Universal Home Remote System as an authorized opener for their unit . When the receiver and the garage door opener are initially programmed together, a code is established and a new code is created for every new transmission. The software in the receiver recognizes the garage door opener and accepts the new code.

The garage door opener is compatible with most, but not all types and brands of transmitters.

The garage door opener is a transmitter operating between 288–434 MHz. The power and range of the transmitter is limited to comply with laws governing the generation of radio frequency interference. The transmitter is programmed by the user to accept the signal generated by the user's transmitters.

The garage door opener has 3 buttons that may be programmed for individual transmitter/receiver combinations to control up to 3 garage door openers, security gates, lighting systems, etc. Each button represents a transmitter code section of the transmitter, which operates separately from any other button, and may be considered a separate transmitter. Operation consists of simply pressing a button to activate the corresponding transmitter.

**Note:** Do not use the garage door opener (GDO) with any garage door opener that does not have the stop and reverse safety feature. This includes any garage door opener model manufactured before April 1, 1982.

## Keyless Entry System Description and Operation

The keyless entry system is a vehicle entry device. The keyless entry system is used in conjunction with the door locks to unlock the vehicle. Keyless entry will lock/unlock the vehicle doors or open the rear compartment lid when a corresponding button on the keyless entry transmitter is pressed. This is accomplished by the transmitter sending a radio frequency to the Remote Control Door Lock Receiver antenna that has a direct link to the Body Control Module (BCM). The BCM interprets the signal and activates the requested function or request the appropriate control module to activate the function via a serial data message. A low transmitter battery or radio frequency interference from aftermarket devices, such as 2-way radios, power inverters, computers, etc., may cause a system malfunction. High radio frequency traffic areas, such as gas stations that use pay-at-the-pump radio frequency transponders, may also cause interference that could lead to a malfunction. Keyless entry allows you to operate the following features:

- Door lock/unlock
- Vehicle locator/Panic alarm
- Remote vehicle starting, if equipped

The keyless entry system has the following components:

- Keyless entry transmitters
- Body Control Module
- Remote Control Door Lock Receiver

### Keyless Entry Transmitters

**Note:** When the vehicle key is in the ignition, keyless entry functions from all keyless entry transmitter are disabled.

The keyless entry transmitters are used to perform various entry functions while away from the immediate are of the vehicle. Keyless entry functions may work at up to 20 m (65 ft) away from the vehicle. Ambient conditions may affect the performance of the keyless entry transmitter and reduce the range at which keyless entry functions operate. Up to eight transmitters may be programmed to a single vehicle.

### OnStar® Remote Link (if equipped)

A vehicle operator may have the ability to perform some of the keyless entry functions using applications on personal devices such as a smart phone. Unwanted or inadvertent door lock/unlock activation may be requested by the OnStar® Remote Link app. It is possible that a customer may be unaware of account usage, result in an unwanted or phantom door lock/unlock. If normal system diagnosis does results in an inability to verify the customer’s concern, contact Technical Assistance Center (TAC).

### Body Control Module (BCM)

The BCM is a multifunction module that operates the keyless entry system. When an radio frequency message is received from a keyless entry transmitter, the BCM interprets this signal and performs the specific function, i.e. door lock, door unlock, or vehicle locate.

### Remote Control Door Lock Receiver

The Remote Control Door Lock Receiver acts as an antenna for the keyless entry system and communicates with the BCM through a dedicated serial data link. When a button is pressed on a keyless entry transmitter, the Remote Control Door Lock Receiver receives this signal and sends the request to the BCM. The BCM interprets the signal and performs the specific function, i.e. door lock, door unlock, or vehicle locate.

### Unlock Doors

Momentarily press the transmitter UNLOCK button in order to perform the following functions:

- Unlock only the driver door or all doors and liftgate (if equipped); this is customized through the DIC.
- Illuminate the interior lamps for a determined length of time or until the ignition is turned ON.
- Flash the exterior lights; this is customized through the DIC.

- Disarm the content theft deterrent system, if equipped.
- Deactivate the content theft deterrent system when in the alarm mode.

## Lock All Doors

Press the transmitter LOCK button to perform the following functions:

- Lock all vehicle doors.
- Immediately turn OFF the interior lamps.
- Flash the exterior lights and/or sound the horn; this is customized through the DIC.
- Arm the content theft deterrent system.

## Vehicle Locator/Panic Alarm

A single press of the panic button performs the following functions. Some functions may be dependent on personalization settings:

- Pulse the horn three times.
- Flash the exterior lamps three times.

A press and hold of the panic button performs the following functions:

- Illuminate the interior lamps.
- Pulse the horn and flash the exterior lamps for 30 seconds or until the following conditions occur:
  - The panic button is pressed.
  - The ignition switch is turned to the RUN position with a valid key.

## Remote Vehicle Start, if equipped

The remote vehicle start function allows engine starting while not in the vehicle. It also allows the vehicle HVAC system and other vehicle systems to enable, providing a comfortable vehicle upon entry. The remote vehicle start sequence begins by pressing and releasing the lock button and then pressing and holding the remote vehicle start buttons on the keyless entry transmitter. The turn signal lamps will illuminate to indicate the vehicle has received the remote start request. Each time an remote vehicle start is performed, the vehicle doors are locked, however they may then be unlocked/locked with the transmitter or vehicle key at any time. Once activated, the engine is allowed to run for 10 minutes. The remote vehicle start time may be extended by an additional 10 minutes by again pressing and releasing the lock button and then pressing and holding the remote vehicle start buttons on the transmitter. This feature is called a remote vehicle start continue and allows a maximum of 20 minutes of engine running. If the remote vehicle start continue is performed at seven minutes into the initial 10 minute time-out, a total of 17 minutes of engine running would occur. The remote vehicle start event may be suspended at any time by pressing only the remote vehicle start button on the transmitter or by entering the vehicle and pressing the hazard lamp switch.

In between ignition cycles, only two remote vehicle start events may occur or be attempted. Once two events or attempts have been made, future remote vehicle start events will be suspended until the vehicle is started using the ignition.

## Hood Ajar Switch

The hood switch provides status of the hood to the BCM for remote vehicle start purposes. The switch is integrated into the hood latch assembly.

## Remote Vehicle Start Circuit Description

The BCM receives a signal from the keyless entry transmitter indicating a remote vehicle start request. A message is then sent to the BCM which determines if a crank request message will be sent to the ECM to allow engine starting. To determine if conditions are correct for an remote vehicle start event, the BCM will ensure the following conditions are met:

- A valid hood ajar switch closed signal is present.
- The doors are locked.
- The hazard switch is OFF.
- The vehicle power mode is correct.
- No content theft deterrent alarm triggers are present.

When the BCM determines all conditions meet those required for an remote vehicle start event, a message is sent via serial data to the ECM. The ECM relies on the remote vehicle start message from BCM to enable remote vehicle start when the crank request signal is received. If the ECM does not receive a valid remote vehicle start message, it will not attempt to start the engine. While the ECM is in remote vehicle start mode it will suspend engine operation if any of the following additional conditions occur:

- Vehicle speed is greater than 0.
- Transmission is not in PARK.
- Excessive engine coolant temperature
- Low oil pressure
- The malfunction indicator lamp (MIL) is commanded ON.
- Engine crank time is greater than 30 seconds.
- Excessive engine speed
- Accelerator pedal position too high
- Remote start timer equals 0.
- Immobilizer system indicates tamper

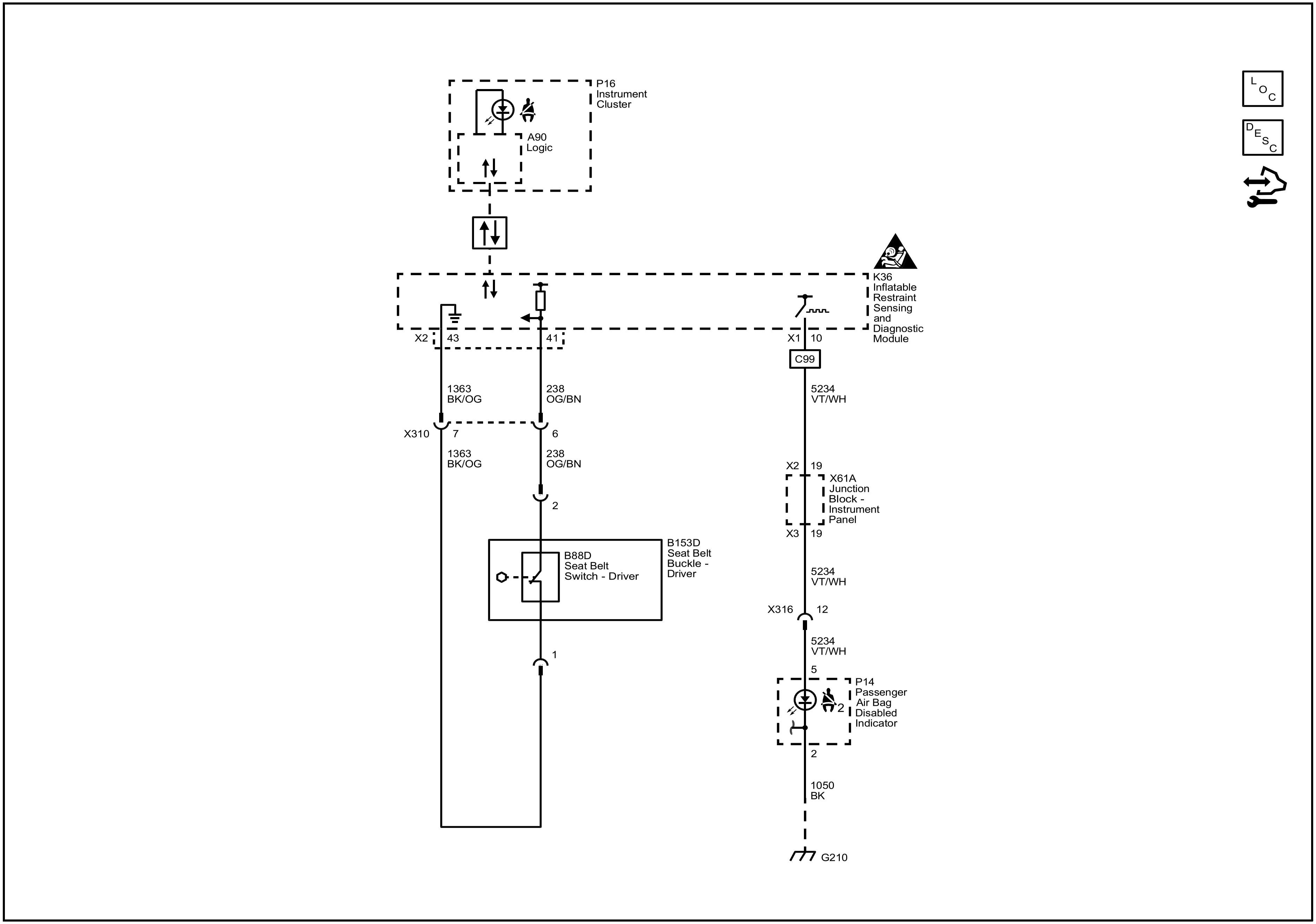
## Keyless Entry Personalization

Vehicle lock/unlock functions and remote vehicle start remote vehicle start settings may be personalized. For functional descriptions and personalization instructions, refer to the vehicle owners manual.

# Seat Belts

## Schematic and Routing Diagrams

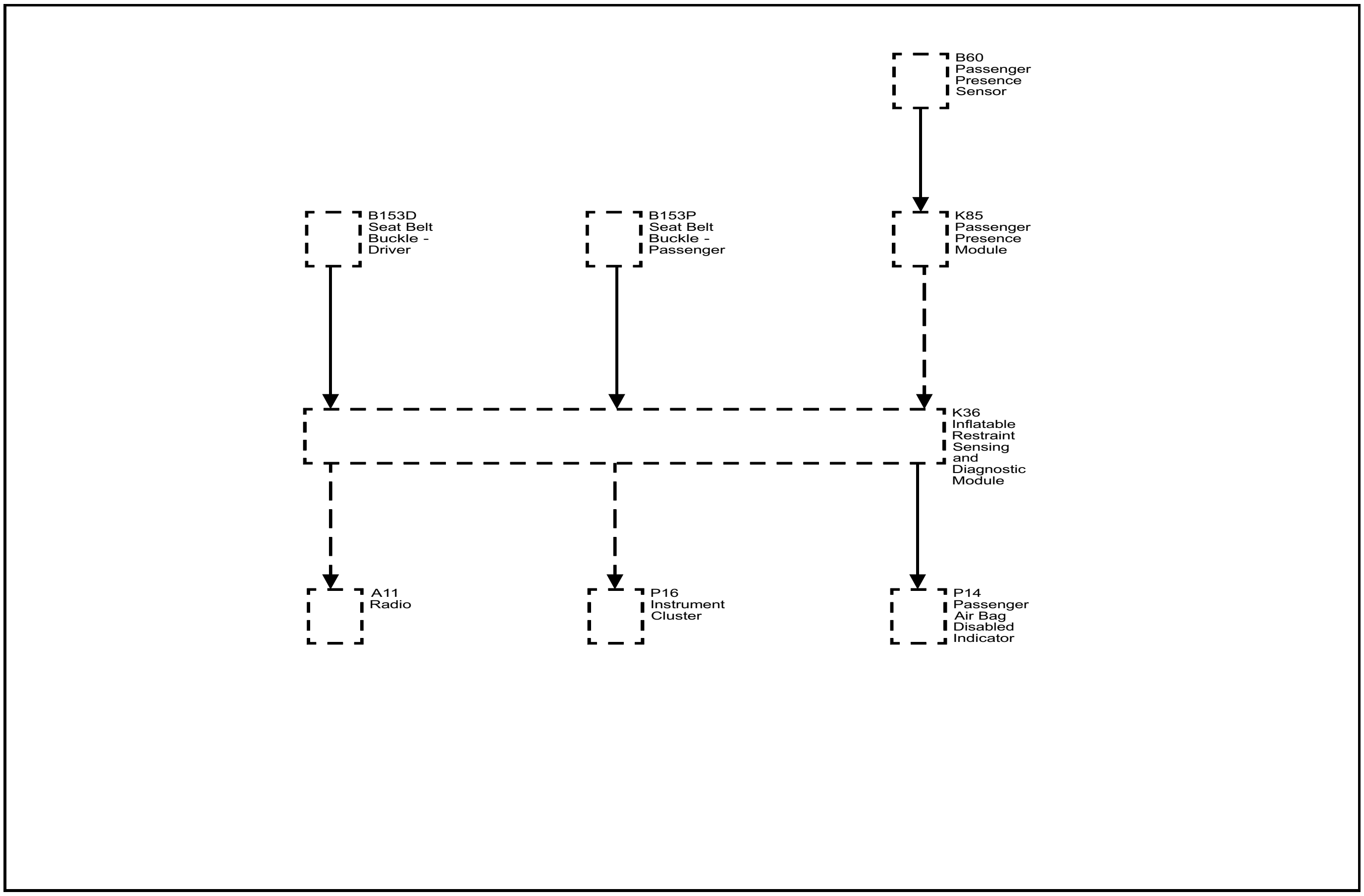
## Seat Belt Schematics (Seat Belts)


L O C
D E S C
P16
Instrument
Cluster
A90
Logic
K36
Inflatable
Restraint
Sensing
and
Diagnostic
Module
X2
43
41
X1
10
C99
1363
BK/OG
238
OG/BN
5234
VT/WH
X310
7
6
1363
BK/OG
238
OG/BN
X2
19
X61A
Junction
Block -
Instrument
Panel
X3
19
2
B153D
Seat Belt
Buckle -
Driver
B88D
Seat Belt
Switch - Driver
5234
VT/WH
X316
12
5234
VT/WH
1
5
P14
Passenger
Air Bag
Disabled
Indicator
2
2
1050
BK
G210
4915105

# Description and Operation

## Seat Belt System Description and Operation

### Seat Belt with P14 Block Diagram


B60 Passenger Presence Sensor
B153D Seat Belt Buckle - Driver
B153P Seat Belt Buckle - Passenger
K85 Passenger Presence Module
K36 Inflatable Restraint Sensing and Diagnostic Module
A11 Radio
P16 Instrument Cluster
P14 Passenger Air Bag Disabled Indicator

3513718

**Note:** Not all items shown in block diagram are available in this publication

## Restraint System

**Note:** If the vehicle has been in a collision, refer to *Repairs and Inspections Required After a Collision* in the Service Manual.

The vehicle has front and rear seat belts that are the primary means of occupant restraint. Seat belts help to keep the occupants inside the passenger compartment and to gradually reduce the impact forces during the following events:

- Frontal impact type crashes
- Rear impact type crashes
- Side impact type crashes
- Roll-over type crashes

All seat belt retractors have emergency locks. The retractors remain unlocked during normal operation and under normal driving conditions. The retractors remain unlocked during normal conditions in order to allow free movement of the upper body of each occupant.
A pendulum locks the seat belt webbing into position. The pendulum causes a locking bar to engage a cog on the spool of the retractor mechanism when the following conditions occur:

- A rapid extraction of the seat belt webbing from the retractor
- An abrupt change in vehicle speed
- An abrupt change in vehicle direction
- Operation of the vehicle on a steep upgrade
- Operation of the vehicle on a downgrade

The seat belts have an automatic locking (cinch) feature. The cinch feature is activated when the seat belt webbing is completely extended from the retractor. The cinch feature prevents the webbing from extending beyond the position from which it is allowed to retract. Use of the cinch feature is recommended for securing a child seat. The cinch feature may be cancelled by allowing the webbing to wind back completely into the retractor. After the cinch feature is cancelled, the webbing is unlocked. After the cinch feature is cancelled, the webbing will extend from the retractor. This vehicle is also equipped with a supplemental inflatable restraint (SIR) system. Refer to *Supplemental Inflatable Restraint System Description and Operation on page 8-19*

## Motorized Seat Belts

A motorized seat belt is a seat belt with a motor coupled to the shoulder belt retractor. The motorized seat belt provides the driver and passenger a sense of safety and, in the case of severe braking or a crash, more quickly couples the occupant to the vehicle, enhancing the safety to the occupant.

**Motorized seat belts monitor vehicle information to determine when to perform each of the following retractions**

- Full retraction for such situations but not limited to: panic braking and or skidding
- Dynamic support for lateral and longitudinal dynamics

**Preconditions for motorized seat belt retractions**

- Seat belt buckle is latched
- Vehicle speed greater than or equal to 25 kph (16 mph)
- All messages on serial data are received as valid

**Triggers that may cause motorized seat belt retractions**

- Emergency Braking
- Sudden Emergency / Panic Braking
- High Vehicle Deceleration Detection
- Ice Braking Detection
- Oversteer and Understeer

**Motorized seat belt inputs**

- Vehicle Power Mode
- Transmission Gear
- Wheel Speeds
- Vehicle Acceleration
- Accelerator Pedal Position
- Steering Wheel Angle and Gradient
- Yaw Rate and Lat/Long Acceleration
- Brake Pedal Position, Gradient, Pressure, Initial Travel
- Vehicle Stability

**Motorized seat belt output signals**

- Driver information center message – motorized seat belt Failed “Service Automatic Seatbelt Tightening”
- Driver information center message – motorized seat belt Unavailable “Automatic Seatbelt Tightening Unavailable”

Motorized seat belt retractions are inhibited when seat belt unbuckled

Driver and passenger motorized seat belts operate independently

## Front Seat Belt System

The front seat belt system includes a driver and passenger seat belt pretensioner retractor. Both front seat belt pretensioners includes a seat belt switch in the seat buckle which controls a reminder lamp and a tone alarm.

**Note:** The front passenger seat is equipped with a passenger presence detection sensor, which detects an occupant. If the passenger presence detection sensor detects an empty front passenger seat, then the passenger fasten safety belt indicator will be disabled.

- When the driver seat belt is buckled and the ignition switch is turned ON, the following events will occur:
  – The tone alarm will not operate.
  – The reminder lamp will not operate.
- When the driver seat belt is not buckled and the ignition switch is in the ON position, the following events will occur:
  – The tone alarm will operate for 4–8 seconds and then go OFF.
  – The fasten safety belt indicator will turn ON for 20 seconds, until the driver seat belt is buckled.

## Rear Seat Belt System

The Rear Seat Belt System includes the following components:

- The rear seat belt retractor is located at the wheelhouse panel and attached to the floor panel by the rear seat shoulder belt retractor bracket.
- The rear seat belt buckles and the center seat belt buckle are attached to each seat.

## Child Seat Restraint System

***Warning: A child in a rear-facing child restraint can be seriously injured if the front passenger air bag inflates, because the back of a rear-facing child restraint would be very close to the inflating air bag. NEVER use a rear-facing child restraint in this vehicle. If a forward-facing child restraint is suitable for your child, ALWAYS move the front passenger seat as far back as it will go and then install the child restraint. Be sure the child restraint position does not conflict with any additional requirements provided by the manufacturer. For more information, refer to the vehicle owner’s manual and the instructions that came with the child restraint.***

A child in a rear-facing child restraint can be seriously injured if the right-front passengers air bag inflates. This is because the back of a rear-facing child restraint would be very close to the inflating air bag. NEVER use a rear-facing child restraint in this vehicle. If a forward-facing child restraint is suitable for your child, ALWAYS move the front passenger seat as far back as it will go and then install the child restraint. Be sure the child restraint position does not conflict with any additional requirements provided by the manufacturer. For more information, refer to the vehicle owners manual and the instruction that came with the child restraint.

The child seat may only be used in a forward facing seating location. The child seat should be installed and secured according to the manufacturer's directions.
If the child seat has a top strap, the seat will need to be anchored. Passengers should not be allowed to sit at locations where the seat belts are being used to secure the child seat.

All vehicles are equipped with a dual-mode type retractor with emergency and automatic locking features. The automatic locking feature is for restraint of a child seat. The child seat can be secured by pulling the seat belt all the way out to lock it. Then tighten the seat belt around the child seat.

If a child seat is to be used in the second seat position, a special dealer-installed anchor must be used in order to anchor the child seat top strap. This only applies to the seats designed with the top strap provision and for the vehicles sold in Canada. In order to ensure the correct top strap angle, the child seat is only to be used at the seating position for which the top strap anchor is installed.

## Fasten Safety Belt Indicators

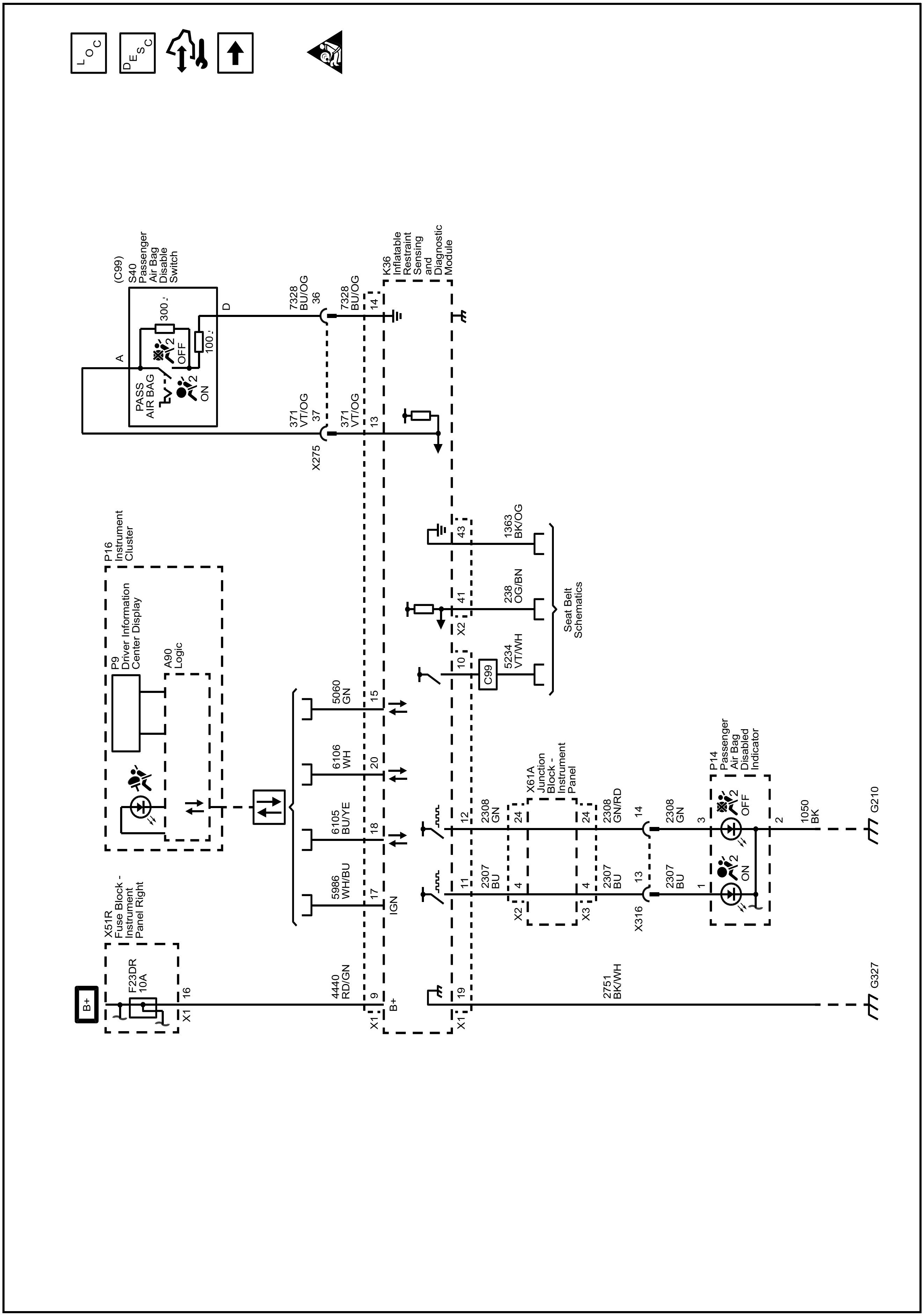
There is a fasten safety belt indicator for this vehicle. The driver fasten safety belt reminder is displayed in the instrument cluster. The fasten safety belt indicator may only be ON during RUN. The fasten safety belt indicator illuminates under the following conditions:

- During the bulb check
- The inflatable restraint sensing and diagnostic module (SDM) sends the status of the driver seat belt to the instrument cluster via serial data. If any of the seat belts are unfastened, the instrument cluster will send a message requesting a chime sound to be turned ON after a bulb check.

# Supplemental Inflatable Restraints

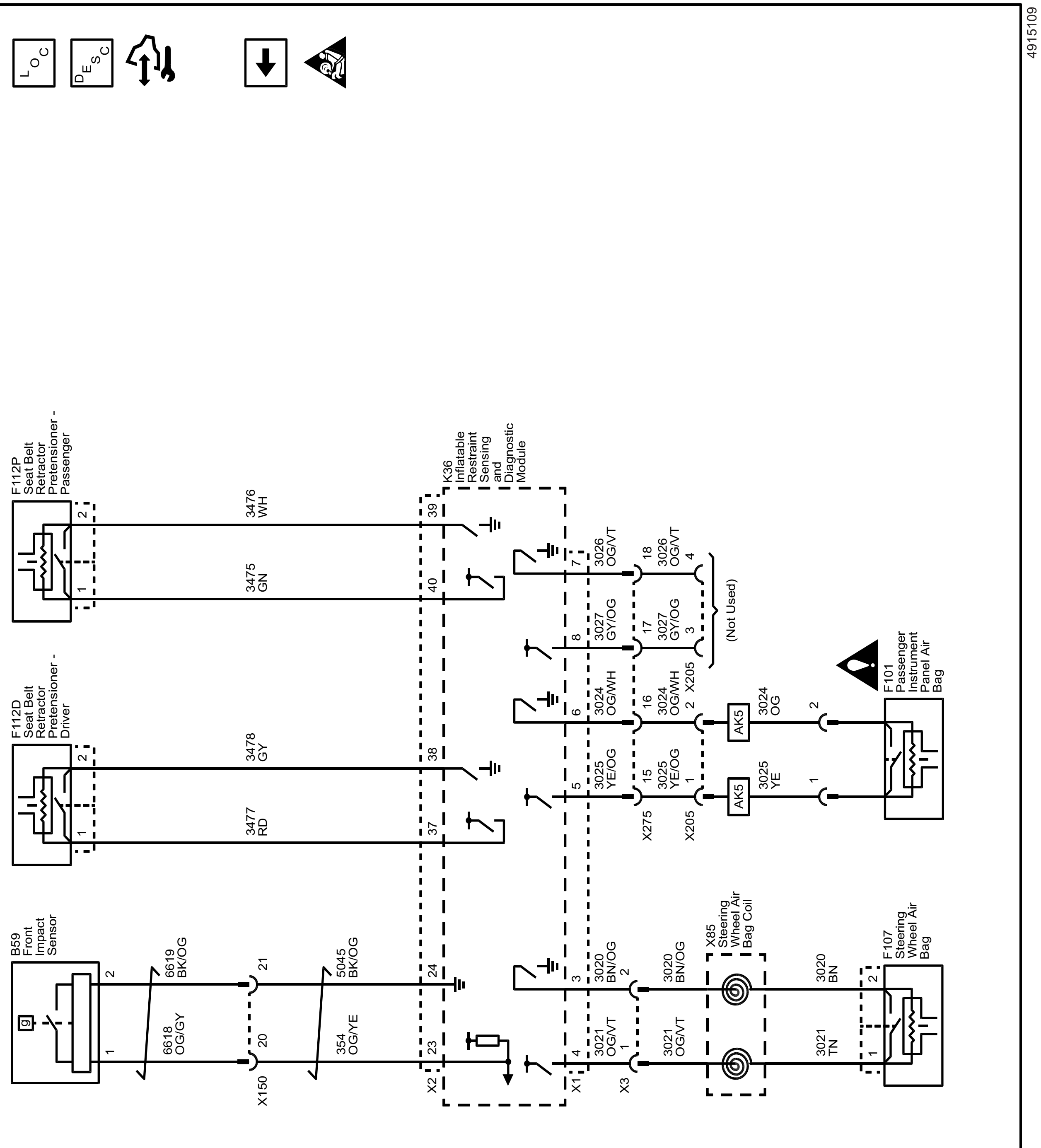
## Schematic and Routing Diagrams

# SIR Schematics (Power, Ground, Serial Data, Disable Switch and Indicators)


L O C
D E S C
B+
X51R Fuse Block - Instrument Panel Right
F23DR 10A
16
X1
4440 RD/GN
P16 Instrument Cluster
P9 Driver Information Center Display
A90 Logic
5986 WH/BU
6105 BU/YE
6106 WH
5060 GN
17
18
20
15
9
X1
B+
IGN
K36 Inflatable Restraint Sensing and Diagnostic Module
19
X1
11
12
X2
10
41
43
C99
5234 VT/WH
238 OG/BN
1363 BK/OG
Seat Belt Schematics
2751 BK/WH
G327
2307 BU
2308 GN
X61A Junction Block - Instrument Panel
4
24
X2
X3
2307 BU
2308 GN/RD
13
14
X316
2307 BU
2308 GN
1
3
P14 Passenger Air Bag Disabled Indicator
ON
OFF
2
1050 BK
G210
(C99) S40 Passenger Air Bag Disable Switch
PASS AIR BAG
ON
OFF
2
A
D
300 Ω
100 Ω
371 VT/OG
37
X275
7328 BU/OG
36
371 VT/OG
13
7328 BU/OG
14

4915106

## SIR Schematics (Frontal Impact Sensing and Deployment)


4915109
B59 Front Impact Sensor
F112D Seat Belt Retractor Pretensioner - Driver
F112P Seat Belt Retractor Pretensioner - Passenger
K36 Inflatable Restraint Sensing and Diagnostic Module
X85 Steering Wheel Air Bag Coil
F107 Steering Wheel Air Bag
F101 Passenger Instrument Panel Air Bag
6619 BK/OG
6618 OG/GY
5045 BK/OG
354 OG/YE
3476 WH
3475 GN
3478 GY
3477 RD
3026 OG/VT
3027 GY/OG
3024 OG/WH
3025 YE/OG
3024 OG
3025 YE
3020 BN/OG
3021 OG/VT
3020 BN
3021 TN
AK5
AK5
(Not Used)
X150
X2
X1
X3
X275
X205
X205
1
2
20
21
23
24
37
38
39
40
3
4
5
6
7
8
15
16
17
18
1
2
3
4
g

# Description and Operation

## Supplemental Inflatable Restraint System Description and Operation

### SIR System Overview

The supplemental inflatable restraint (SIR) system supplements the protection offered by the seat belts. The SIR system contains an inflatable restraint sensing and diagnostic module (SDM), air bags, seat belt pretensioners (retractor), and impact sensor. When the inflatable restraint sensing and diagnostic module detects a collision, the inflatable restraint sensing and diagnostic module will process the information provided by the sensors to further support air bag or pretensioner deployment. The inflatable restraint sensing and diagnostic module will deploy the air bags and pretensioners if it detects a collision of sufficient force. If the force of the impact is not sufficient to warrant air bag deployment, the inflatable restraint sensing and diagnostic module may still deploy the seat belt pretensioners. The inflatable restraint sensing and diagnostic module contains a sensing device that converts vehicle velocity changes to an electrical signal. The inflatable restraint sensing and diagnostic module compares these signals to values stored in memory. If the signals exceed a stored value, the inflatable restraint sensing and diagnostic module will determine the severity of the impact and either cause current to flow through the frontal deployment loops deploying the frontal air bags and pretensioners, or it will deploy the pretensioners only. The inflatable restraint sensing and diagnostic module continuously monitors the deployment loops for malfunctions and illuminates the AIR BAG indicator if a fault is detected. The inflatable restraint sensing and diagnostic module performs continuous diagnostic monitoring of the SIR system electrical components. Upon detection of a circuit malfunction, the inflatable restraint sensing and diagnostic module will set a DTC and inform the driver by illuminating the AIR BAG indicator. The steering column and knee bolsters are designed to absorb energy and compress during frontal collisions in order to limit leg movement and decrease the chance of injury to the driver and passenger.

### AIR BAG Indicator (Driver)

The AIR BAG indicator, located in the instrument cluster, is used to notify the driver of SIR system malfunctions and to verify that the inflatable restraint sensing and diagnostic module (SDM) is communicating with the instrument cluster. When the ignition is turned ON, the inflatable restraint sensing and diagnostic module is supplied with ignition positive voltage. The instrument cluster will momentarily turn on the AIR BAG indicator. While the indicator is on, the inflatable restraint sensing and diagnostic module conducts tests on all SIR system components and circuits. If no malfunctions are detected the inflatable restraint sensing and diagnostic module will communicate with the instrument cluster through the serial data circuit and command the AIR BAG indicator OFF. The inflatable restraint sensing and diagnostic module provides continuous monitoring of the air bag circuits by conducting a sequence of checks. If a malfunction is detected the inflatable restraint sensing and diagnostic module will store a diagnostic trouble code (DTC) and command the instrument cluster to illuminate the AIR BAG indicator via serial data. The presence of a SIR system malfunction could result in non-deployment of the air bags or deployment in conditions less severe than intended. The AIR BAG indicator will remain ON until the malfunction has been repaired.

### Inflatable Restraint Sensing and Diagnostic Module (SDM)

The inflatable restraint sensing and diagnostic module (SDM) is a microprocessor and the control center for the supplemental inflatable restraint (SIR) system. The inflatable restraint sensing and diagnostic module contains internal sensors along with external impact sensor(s) mounted at strategic locations on the vehicle. In the event of a collision, the inflatable restraint sensing and diagnostic module compares the signals from the internal and external impact sensor(s) to a value stored in memory. When the generated signals exceed the stored value, the inflatable restraint sensing and diagnostic module will cause current to flow through the appropriate deployment loops to deploy the air bags. The inflatable restraint sensing and diagnostic module records the SIR system status when a deployment occurs and illuminates the AIR BAG indicator located in the instrument cluster. The inflatable restraint sensing and diagnostic module performs continuous diagnostic monitoring of the SIR system electrical components and circuitry when the ignition is turned ON. If the inflatable restraint sensing and diagnostic module detects a malfunction, a DTC will be stored and the inflatable restraint sensing and diagnostic module will request the instrument cluster to illuminate the AIR BAG indicator, notifying the driver that a malfunction exists. In the event that ignition positive voltage is lost during a collision, the inflatable restraint sensing and diagnostic module maintains a 23-volt loop reserve for deployment of the air bags. It is important when disabling the SIR system for servicing or rescue operations to allow the 23-volt loop reserve to dissipate, which could take up to 1 minute.

### Air Bags

This vehicle contains 2 air bags. The 2 air bags are located in the steering wheel (single inflator) and instrument panel (passenger side) (single inflator). To view the locations of the air bags refer to *Master Electrical Component List* in the Service Manual. Air bags contain a housing, inflatable air bag, on einitiating device, canister of gas generating material and, in some cases, stored compressed gas. The deployment loops supply current through the inflator modules to deploy the air bags. For moderate frontal collisions the air bags deploy at less than full deployment which consists of stage 1. The current passing through the air bag, ignites the material in the canister producing a rapid generation of gas and is some cases, the release of compressed gas. The gas produced from this reaction rapidly inflates the air bag. Once the air bag is inflated it quickly deflates through the air bag vent holes and/or the bag fabric. Each air bag is equipped with a shorting bar located in the connectors of the module.

The shorting bar shorts the air bag deployment loop circuitry to prevent unwanted deployment of the air bag when it is disconnected.

## Seat Belt Pretensioners (Retractor)

The seat belt pretensioners (driver and passenger) consist of a housing, seat belt retractor (located in the B-pillar), seat belt webbing, an initiator, and a canister of gas generating materials. To view the locations of the seat belt pretentioners refer to *Master Electrical Component List* in the Service Manual. The initiator is part of the seat belt pretensioner deployment loop. When the vehicle is involved in a collision of sufficient force, the inflatable restraint sensing and diagnostic module causes current to flow through the seat belt deployment loops to the initiator. Current passing through the initiator ignites the material in the canister producing a rapid generation of gas. The gas produced from this reaction deploys the seat belt pretensioners which removes all of the slack in the seat belts. Depending on the severity of the collision, the seat belt pretensioners may deploy without the frontal air bags deploying, or they will deploy immediately before the frontal air bags deploy. Each seat belt pretensioner is equipped with a shorting bar that is located in the connector of the seat belt pretensioner. The shorting bar shorts the seat belt pretensioner circuitry to prevent unwanted deployment of the seat belt pretensioner when the connector is disconnected.

## Impact Sensors

There is one impact sensor which is located in the front of the vehicle.To view the locations of the impact sensors refer to *Master Electrical Component List* in the Service Manual. The front of vehicle, the impact sensor contains a sensing device which monitors vehicle acceleration to detect collisions that are severe enough to warrant air bag deployment. The impact sensors are not part of the deployment loop, but instead provide input to the Inflatable Restraint Sensing and Diagnostic Module (SDM). The Inflatable Restraint Sensing and Diagnostic Module contains a microprocessor that performs calculations using the measured inputs from acceleration and pressure sensors. When the generated calculations exceed the stored value, the Inflatable Restraint Sensing and Diagnostic Module will cause current to flow through the deployment loops deploying the appropriate air bags.

## Seat Belt Indicators

The seat belt indicators are controlled through the inflatable restraint sensing and diagnostic module (SDM). For further information on seat belt indicators refer to *Seat Belt System Description and Operation on page 8-13*.

# Section 9

# Transmission

**Power Take-Off** . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 9-3
  **Schematic and Routing Diagrams** . . . . . . . . . . . . . . . 9-3
    Power Take-Off (PTO) Schematics . . . . . . . . . . . . . . 9-4
  **Description and Operation** . . . . . . . . . . . . . . . . . . . . . . . 9-6
    Power Take-Off (PTO) Description and Operation . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 9-6
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  **Schematic and Routing Diagrams** . . . . . . . . . . . . . . 9-12
    Shift Lock Control Schematics . . . . . . . . . . . . . . . . . . 9-13
  **Description and Operation** . . . . . . . . . . . . . . . . . . . . . . 9-14
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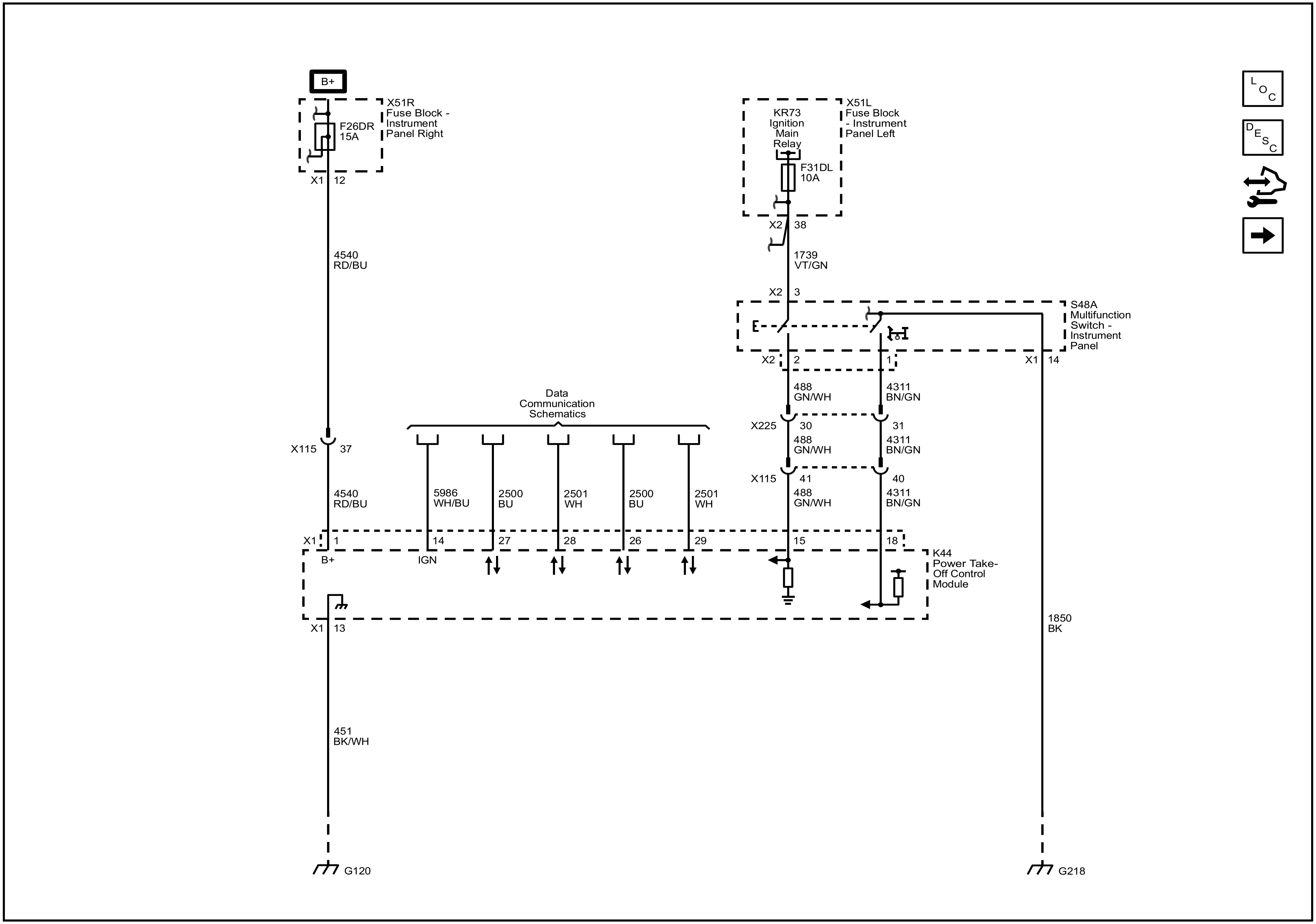
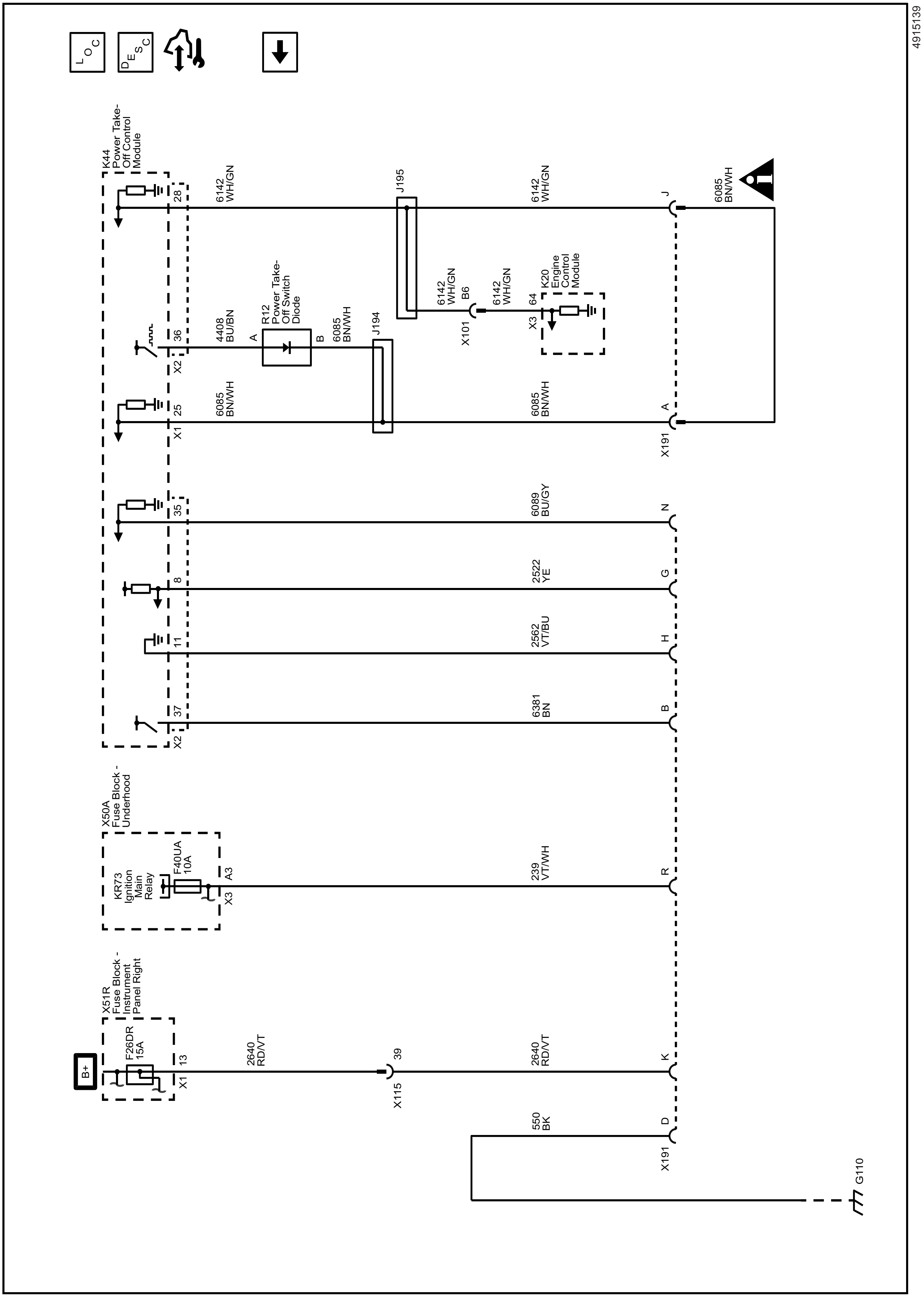
# Power Take-Off

## Schematic and Routing Diagrams

## Power Take-Off (PTO) Schematics (Power, Ground, Serial Data and Enable (PTO))


B+
X51R
Fuse Block - Instrument Panel Right
F26DR
15A
X1 12
4540
RD/BU
X115 37
4540
RD/BU
X1 1
B+
X1 13
451
BK/WH
G120
KR73
Ignition
Main
Relay
X51L
Fuse Block - Instrument Panel Left
F31DL
10A
X2 38
1739
VT/GN
X2 3
S48A
Multifunction Switch - Instrument Panel
X2 2
1
X1 14
488
GN/WH
4311
BN/GN
X225 30
31
488
GN/WH
4311
BN/GN
X115 41
40
488
GN/WH
4311
BN/GN
15
18
Data Communication Schematics
5986
WH/BU
2500
BU
2501
WH
2500
BU
2501
WH
14
IGN
27
28
26
29
K44
Power Take-Off Control Module
1850
BK
G218
4915137

## Power Take-Off (PTO) Schematics (Provisional Connector (PTO))


4915139
LOC
DESC
B+
X51R Fuse Block - Instrument Panel Right
F26DR 15A
X1 13
2640 RD/VT
X115 39
2640 RD/VT
K
X50A Fuse Block - Underhood
KR73 Ignition Main Relay
F40UA 10A
X3 A3
239 VT/WH
R
K44 Power Take-Off Control Module
X2 37
6381 BN
B
11
2562 VT/BU
H
8
2522 YE
G
35
6089 BU/GY
N
X1 25
6085 BN/WH
6085 BN/WH
A
X191
X2 36
4408 BU/BN
A
R12 Power Take-Off Switch Diode
B
6085 BN/WH
J194
28
6142 WH/GN
J195
6142 WH/GN
B6
X101
6142 WH/GN
X3 64
K20 Engine Control Module
6142 WH/GN
J
6085 BN/WH
550 BK
D
X191
G110

# Description and Operation

## Power Take-Off (PTO) Description and Operation

The power take-off (PTO) is an upfitter integrated system that allows the user to create an auxiliary power source. The PTO system specifically controls engine speed to values higher than normal base idle, PTO load relay engagement, and remote starting and shutdown of the engine. When the operator requests PTO, the PTO switch will be turned ON and the engine RPM will go to a default standby speed.

The PTO system utilizes the following:

- The transmission driven PTO gear
- The in-cab PTO switch and cruise control SET – and RES + switches
- The PTO telltale indicator
- The power take off module (PTOM)
- The remote PTO upfitter connector

**Note:** For specific information on how to set up and operate the Power Take Off system refer to the vehicle Duramax Diesel supplement manual and the GM Upfitter website.

## Factory Installed PTO Components

### The in-cab PTO switch and cruise control SET – and RES + switches

The PTO switch is a part of the switch bank and is mounted in the right side of the center instrument panel. The PTO switch is a two position momentary switch with two states: ON/OFF. When the PTO switch is pressed and released to the ON position, the PTO relay will be energized by the PTOM. The cruise control SET – and RES + switches are used to control PTO desired speed. Note that the cruise control ON/OFF switch shall be set to OFF for PTO to operate.

### PTO Telltale Indicator

The PTO telltale indicator is a part of the DIC message center. The PTOM shall command the state of the PTO telltale via instrument panel displays based on the following criteria:

- The telltale will illuminate, flashing at a 0.5 second interval rate when the PTO relay is energized. The indicator illuminates solid once the PTO load feedback signal confirms the load has been engaged or after 2 seconds if load feedback is not utilized by the PTO system.
- The telltale will flash at a 1 second interval rate when PTO memory speed is retained. Depressing the in-cab PTO switch to the OFF position turns the PTO system off. The PTO telltale will turn off once engine speed reaches base engine idle, at which time the PTO relay is de-energized.

### Power Take-Off Module (PTOM)

- Processes PTO operator switch inputs and translates these inputs into an engine speed request to the ECM
- Controls the engagement of the PTO load relay
- Process requests to the BCM and ECM to start and shutdown the engine
- Requests the IPC to display on the DIC the actions the driver must take to enable PTO
- Requests the ECM to command an engine shutdown and engine shutdown horn warning for critical engine and transition conditions (stationary remote PTO only).

The PTOM constantly looks at the information from various sensors and other inputs, and controls the systems that affect vehicle performance. If any of the PTO engage conditions for the specific operating mode are no longer valid, the engine controller will exit out of PTO mode.

### Remote PTO Upfitter Connector

The PTO upfitter connector provides access to all remote PTO functions. The connector is located on the right-hand outside frame rail, underneath the passenger side door. Electrical connections to the following components are provided by this connector. The upfitter connector pin circuits (other than battery, ignition and ground) are disabled as the vehicle is received from the factory. The PTO module must be reprogrammed by the upfitter or dealer to enable the following circuits:

- PTO remote engine arm
- PTO remote engine shutdown/start
- PTO remote set/variable speed potentiometer
- PTO lead feedback

## Other Vehicle Modules

The PTO system also utilizes the following vehicle modules, which communicate over the serial data system:

- The body control module (BCM)
- The engine control module (ECM)
- The instrument panel cluster (IPC)
- The transmission control module (TCM)
- The electronic brake control module (EBCM)

### Body Control Module (BCM)

The BCM maintains the PTO factory default mode, unless it is reprogrammed with a scan tool to change the PTO configuration mode. The BCM also controls the remote start/shutdown function.

### Engine Control Module (ECM)

The ECM controls the engine speed and the engine starting based on messages from the PTOM through serial data. The ECM also provides PTO specific engine information to the PTOM through serial data messages.

### Electronic Brake Control Module

The EBCM monitors the vehicle speed. The PTOM receives the status of the vehicle speed from the EBCM via serial data messages.

### Instrument Panel Cluster (IPC)

The driver information center (DIC) of the IPC displays actions the driver must take in order to engage PTO. If the PTO will not engage, one or more of the following DIC messages may appear on the instrument panel cluster (IPC):

| Stationary PTO | Mobile PTO |
|---|---|
| PTO: REDUCE VEHICLE SPEED | PTO: DISENGAGE CRUISE CONTROL |
| PTO: RELEASE BRAKE | PTO: REDUCE ENGINE SPEED |
| PTO: SET PARK BRAKE | PTO: RELEASE BRAKE |
| PTO: REDUCE ENGINE SPEED | PTO: PRESS and RELEASE BRAKE |
| PTO: SHIFT TO P OR N | PTO: REDUCE VEHICLE SPEED |
| PTO: DISENGAGE CRUISE CONTROL | — |

### Transmission Control Module (TCM)

The TCM adjusts shift patterns to minimize shifting during PTO operation. The TCM also provides transmission gear states and temperature conditions to the PTOM via serial data messages.

### Electronic Brake Control Module (EBCM)

The EBCM disables the PTO if wheel speed pulses are larger than calibratable values. The EBCM also disengages the PTO during a traction control event.

## PTO Enable Conditions

### Stationary PTO

The following conditions must be met in order to engage stationary PTO:

- The engine must be running.
- The vehicle cannot be moving and the parking brake must be set.
- The shift lever must be in PARK (P) or NEUTRAL (N).
- The brake pedal must not be pressed.
- Cruise control must be OFF.

In-cab PTO operation: Press and release the in–cab PTO switch to the ON position. The PTO telltale indicator will flash fast until the PTO load becomes engaged. When the load becomes engaged, the telltale indicator will stop flashing and stay illuminated. The cruise control SET – and RES + switch positions can then be used to establish the desired PTO operating speed.

Remote PTO operation: Press and release the PTO remote arm switch, then within five seconds, press and release the PTO remote engine start/shutdown switch. The remote PTO indicator light will illuminate when the PTO load is engaged. The PTO remote SET or PTO remote variable speed switches can then be used to establish the desired PTO operating speed. These switches are accessed through the PTO upfitter connector, located under the passenger side door.

### Mobile PTO

The following conditions must be met prior to engaging mobile PTO:

- The engine must be running.
- The vehicle speed must be less than the PTO top vehicle speed limit. The default setting is 94 km/h (58 mph). This limit can be adjusted.
- The shift lever must be in M1, M2 or M3.
- The brake must be pressed and then released. The brake must then remain released.
- Cruise control must be OFF.
- Engine speed must be less than the maximum allowed PTO engage speed of 1500 RPM.

Press and release the PTO in-cab switch to the ON position. The PTO telltale will flash fast until the PTO load becomes engaged. When the load becomes engaged, the telltale will stop flashing and stay illuminated. The SET – and RES + switches can then be used to establish the desired PTO operating speed.

## PTO Disengage Conditions

### Stationary PTO

The stationary PTO mode will disengage if any of the following conditions are detected by the vehicle modules:

- Vehicle movement
- The park brake is released
- The transmission is shifted from PARK (P) to DRIVE (D) or REVERSE (R).
- The PTO load becomes disengaged
- A press and release of the PTO in–cab switch to the OFF position.
- A press and release of the PTO remote engine start/shutdown switch (stationary remote PTO only).
- A press and release of the PTO E-STOP switch (stationary remote PTO only).

### Mobile PTO

The mobile PTO mode will also disengage if the following conditions are detected by the vehicle modules:

- A press of the brake pedal
- Vehicle speed exceeds 94 km/h (58 mph)
- Engine speed exceeds the maximum allowed PTO operating speed of 2100 RPM
- The PTO load becomes disengaged
- A press and release of the PTO in–cab switch to the OFF position

The PTO control system will attempt to limit accelerator pedal and PTO switch input as the vehicle approaches the above operational limits. There are some vehicle conditions, such as down hill acceleration, which may cause vehicle speed or engine speed limits to be exceeded. Under those conditions, PTO is disengaged.

## Modes of Operation

### Preset PTO Mode

Preset PTO can only be used when the vehicle is not moving. The engine speed is initially set to a standby engine speed of 900 RPM. This provides an initial start-up engine speed to match the engagement of the PTO load. The PTO standby engine speed can be reprogrammed to higher speeds.

Choose one of two presets by pressing and releasing the cruise control SET – /RES + or PTO remote set switches:

- Speed 1: Pressing the cruise control SET — or PTO Remote Set 1 switch results in a preset speed of 1200 RPM.
- Speed 2: Pressing the cruise control RES + or PTO Remote Set 2 switch results in a preset speed of 1900 RPM

Pressing and releasing the PTO in-cab switch or PTO remote engine start/shutdown switch to the OFF position results in the return of the engine speed back to normal idle. The PTO load relay is also disengaged.

Maximum PTO Operating Speed: To protect the PTO from overspeed, the PTO system will disengage when the engine speed exceeds 3100 RPM.

The Stationary PTO Mode provides both in-cab and remote controls. The in-cab controls are enabled as the factory preset. The remote controls are disabled. This factory preset configuration can be reprogrammed to enable the remote controls, and disable the in-cab PTO controls.

**Note: DO NOT enable/activate PTO during service (hoist) conditions at any time**

### Variable PTO Mode

In this mode, the vehicle can be programmed for stationary or mobile operation.

The variable PTO mode controls engine speed and PTO load engagement and is selected by either the PTO in-cab or remote switches. Engine speed selection is variable between base engine idle speed and a maximum of 3100 RPM.

In the mobile PTO mode, the vehicle will operate at a vehicle speed resulting from the current PTO engine speed request and current transmission gear range selected.

Vehicle speed stability is greatly improved by shifting into the transmission manual mode because upshifts are limited. This reduces the maximum vehicle speed while allowing high engine speed operation. Therefore, low vehicle speed operation, 16–40 km/h (10–25 mph) and high PTO engine speed 1500–2000 RPM can be achieved in the manual mode 1 and 2 transmission ranges.

**In-cab PTO Switch Operation:**

- ON: Press and release the PTO in-cab switch to the ON position to engage PTO. The PTOM will increase the engine speed to the factory preset engine speed. The initial standby speed can be adjusted by holding the accelerator to the desired engine speed, then pressing and releasing the ON switch. The current engine speed will become the new standby speed. This adjustment can only be done once at the initial engagement of the PTO, and the initial standby speed adjustment must be between the engine base idle speed and the maximum PTO engine speed.
- OFF: Press and release the PTO in-cab switch to the OFF position to disengage PTO. The engine speed will return to the base idle speed and the PTO load relay will be disengaged.

**Cruise Control SET– and RES+ Switch Operation:**

- SET —: Press and hold the accelerator to obtain the desired engine speed, then press and release the SET – switch. The current engine speed will be maintained. This action can be repeated as desired to a higher RPM value. The PTO set speed cannot exceed 3100 RPM.
  - – Tap Down: Press and release the SET – switch to reduce the engine speed by increments of 100 RPM.
  - – Coast: Press and hold the SET – switch to reduce the RPM by 150 RPM per second until the desired engine speed is reached or until the initial PTO standby speed is reached.
- RES +: When a PTO set speed has been achieved, press and release the brake pedal. Engine speed will return to normal idle speed. The PTO telltale will flash slowly indicating the previous PTO set speed has been retained in memory. Press and release the RES + to resume the previous PTO set speed. The PTO set speed cannot exceed 3100 RPM.
  - – Tap Up: Press and release the RES + to increase the engine speed by increments of 100 RPM.
  - – Accelerate: Press and hold the RES + to increase the RPM by 150 RPM per second until the desired engine speed is reached or until the maximum allowable PTO set speed is reached.

| PTO State | Applied Switch | Short Apply | Long Apply |
|---|---|---|---|
| PTO STANDBY ENABLED | RES + | Tap Up (Engaged) | Accelerate (Engaged) |
| PTO STANDBY ENABLED | SET − | Engaged | Engaged |
| PTO ENGAGED (RPM already higher than standby) | SET – | Tap Down | Coast |
| PTO ENGAGED (RPM already lower than maximum speed) | RES + | Tap Up | Accelerate |
| STANDBY DISABLED with no memory speed | RES + | No Action | No Action |
| STANDBY DISABLED with a memory speed | RES + | Resume | Resume |
| STANDBY ENABLED with no memory speed | RES + | Tap Up (Engaged) | Resume |
| STANDBY ENABLED with a memory speed | RES + | Resume | Resume |

## Remote Engine Start Control

The PTO system allows the engine to be remotely started while operating in the stationary PTO mode. The wiring system provides for connections to a remote engine start arming switch and remote start/shutdownn switch. These connections are accessed through the upfitter connector.

The remote start function is initiated by a sequence of switch actions, in addition to several vehicle conditions. The following conditions must be met before attempting to remote start the engine. The vehicle ignition key can be in any position or removed from the ignition:

- The vehicle must be configured for stationary PTO operation.
- The parking brake must be set.
- The transmission must be in PARK (P).
- The hood must be closed.

Once the above conditions are met, to continue with the remote start, use the remote PTO controls to do the following:

1. Press and release the PTO remote arm switch.
2. Within five seconds of releasing the PTO remote arm switch, press and release the PTO remote engine start/shutdown switch until the engine starts.

The PTO system will then elevate engine RPM to standby speed and engage the PTO load. Use the PTO remote set or PTO remote variable speed switches (based on configuration) to elevate PTO speed to the desired engine operating speed.

## Remote Engine Shutdown Control

The PTO system allows for remote engine shutdown while operating in the stationary PTO mode. This feature has the following functions:

- Engine shutdown using the operator remote switch: The vehicle wiring system provides remote engine shutdown switch connections, which can be accessed through the PTO upfitter connector.
- Timed auto-engine shutdown: The timed auto-engine shutdown feature provides the means to shut down the engine automatically after a predefined time. PTO must be operational for this function to be active.
- Engine shutdown based on critical engine conditions: The engine can be shutdown when PTO is operating if a critical engine condition is detected by the vehicle system (i.e., low oil, low oil pressure, hot engine, hot transmission, low fuel).
- Emergency engine shutdown: The vehicle wiring system supports remote Emergency engine shutdown via application of the E-STOP switch located at the external (upfitter's) panel accessible through the PTO upfitter connector. (e.g. when PTO relay is stuck closed in Stationary Remote mode, operator shall activate E—STOP switch to shutdown engine and allow engine to be restarted at the next ignition cycle without PTO system activation.

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## PTO Factory Default Settings

### Power Take-Off (PTO) Description and Operation

| Function | Value/Default Setting | Scan Tool/HMI Customization Menu |
|---|---|---|
| PTO Option | None<br>Preset (Default)<br>Variable<br>Mobile | Scan Tool |
| PTO In-Cab Control | Enabled<br>Disabled | Scan Tool |
| PTO Remote Control Status | Enabled<br>Disabled (Default) | Scan Tool |
| PTO Ramp Rate | 4 – 150 RPM/sec | Scan Tool |
| PTO Set 1 Speed | 500 – 3100 RPM<br>1200 RPM (default) | HMI Customization Display/Scan Tool |
| PTO Set 2 Speed | 500 – 3100 RPM<br>1900 RPM (default) | HMI Customization Display/Scan Tool |
| PTO Relay | Yes (default)<br>No | Scan Tool |
| PTO Feedback | Yes (default)<br>No | Scan Tool |
| Fuel Level for Engine Shutdown | 0 – 25% fuel level<br>15% fuel level | Scan Tool |
| PTO to Set 1 Speed | Yes | Scan Tool |

## Power Take-Off (PTO) Description and Operation (cont'd)

| Function | Value/Default Setting | Scan Tool/HMI Customization Menu |
|---|---|---|
| | No (default) | |
| PTO Remote Engine Start | Yes<br>No (default) | Scan Tool |
| PTO Remote Set Switch | Yes<br>No (default) | Scan Tool |
| PTO Remote Set Switch Type | Momentary (default)<br>Latching | Scan Tool |
| PTO Remote Engine Shutdown | Yes<br>No (default) | Scan Tool |
| Remote Set Switch Low = (less than 33% of Ignition voltage) | PTO Standby<br>Set 1 (default)<br>Set 2 | Scan Tool |
| Remote Set Switch High + (33% to 66% of Ignition voltage) | PTO Standby<br>Set 1<br>Set 2 (default) | Scan Tool |
| Remote Set Switch Open = (greater than 66% ignition voltage) | PTO Standby<br>Set 1 (default)<br>Set 2 | Scan Tool |
| PTO Maximum Engage Speed | 0 – 1500 RPM<br>1500 RPM (default) | Scan Tool |
| PTO Maximum Engine Speed | 500 — 3100 RPM<br>2100 RPM (default) | Scan Tool |
| PTO Standby Speed | 500 — 1500 RPM<br>900 RPM (default) | HMI Customization Display/Scan Tool |
| Engine Run Timer | 0 — 1320 minutes | HMI Customization Display/Scan Tool |
| Chirp Before Start | Enabled (default)<br>Disabled | Scan Tool |
| PTO Tap Step | 4 – 500 RPM/Step<br>100 RPM/Step (default) | HMI Customization Display/Scan Tool |
| Brake Release Action | Standby<br>Idle Speed (default) | Scan Tool |
| Remote PTO Variable Speed Switch | Yes<br>No (default) | Scan Tool |
| PTO ON During Braking | Yes (default)<br>No | Scan Tool |
| Maximum Vehicle Speed | 30 kph (19 mph) to 94 kph (58 mph)<br>94 kph ((58 mph) (default) | Scan Tool |
| PTO Minimum Remote Variable Speed | 0 – 50%<br>2% (default) | Scan Tool |
| PTO Maximum Remote Variable Speed | 50 – 100%<br>95% (default) | Scan Tool |
| Engine Shutdown Enable | Yes<br>No (default) | Scan Tool |
| PTO Accelerator Lockout | Enabled<br>Disabled (default) | Scan Tool |

## Reprogramming the PTOM for Fast Idle/PTO Using the Scan Tool

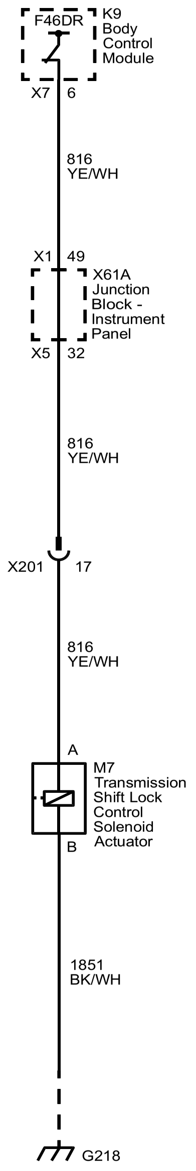
A scan tool must be used to enable certain PTO options and also to adjust the factory preset parameters to the desired settings.

For additional scan tool information, refer to *Control Module References* in the Service Manual.

# Shift Lock Control

## Schematic and Routing Diagrams

## Shift Lock Control Schematics (Shift Lock Control)


F46DR
K9
Body
Control
Module
X7
6
816
YE/WH
X1
49
X61A
Junction
Block -
Instrument
Panel
X5
32
816
YE/WH
X201
17
816
YE/WH
A
M7
Transmission
Shift Lock
Control
Solenoid
Actuator
B
1851
BK/WH
G218

4915145

# Description and Operation

## Automatic Transmission Shift Lock Control Description and Operation

The Automatic Transmission Shift Lock Control System is a safety device that prevents an inadvertent shift out of PARK when the engine is running. The driver must press the brake pedal before moving the shift lever out of the PARK position. The system consists of the following components:

- The Automatic Transmission Shift Lock Solenoid (serviced as the Automatic Transmission Shift Lock Actuator)
- The Body Control Module (BCM)
- The Engine Control Module (ECM)

The BCM controls the voltage to the shift lock control solenoid though the shift lock control solenoid controlled voltage circuit. The following conditions must be met before the BCM will supply voltage to the shift lock control solenoid:

- The ignition is in the ON position.
- The ECM sends an input via GMLAN serial data to the BCM when the Transmission Control Module (TCM) indicates the transmission is in the PARK position.
- The BCM receives a brake applied input from the stop lamp switch.

Since the shift lock control solenoid is permanently grounded, the BCM supplies voltage to the automatic transmission shift lock control solenoid, releasing the mechanical lock on the shift lever as the solenoid energizes. The energized solenoid allows the driver to move the shift lever out of the PARK position. When the brake pedal is not applied, the BCM turns the control voltage output of the shift lock control solenoid OFF, de-energizing the shift lock control solenoid. When the transmission is in the PARK position, the de-energized shift lock control solenoid will prevent shifting as the lever is mechanically locked in the PARK position.

During remote start operation the BCM will de-energize the automatic transmission shift lock control circuit, locking the shift lever in the PARK position

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